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CONTRIBUTIONS FROM THE
MUSEUM OF THE AMERICAN INDIAN
HEYE FOUNDATION
Volume V, No. 4

EXPLORATION OF ABORIGINAL SITES
AT THROGS NECK AND CLASONS
POINT, NEW YORK CITY

BY
ALANSON SKINNER

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- I. THE THROGS NECK OR SCHLEY AVENUE SHELLHEAP
II. SNAKAPINS, A SIWANEOY SITE AT CLASONS POINT

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ALANSON SKINNER

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CONTENTS

	PAGE
Foreword	49
I.—THE THROGS NECK OR SCHLEY AVENUE SHELLHEAP	51
Historical Introduction	51
The Shellheap	52
The Later Pits	54
The Ancient Pits	57
Bone Articles	58
Articles of Antler	60
Animal-tooth Pendants	61
Implements of Stone	61
Objects of Shell	65
Metal Objects	67
Trade Objects in General	67
Pottery	67
Conclusions	70
II.—SNAKAPINS, A SIWANoy SITE AT CLASONS POINT	75
Historical Introduction, by Reginald Pelham Bolton	75
The Site	78
The Pits and their Contents	79
Summary of the Pit Finds	88
Articles of Bone	91
Objects of Cut Bone	93
Miscellaneous Bone Objects	94
Articles of Tortoise-shell	96
Objects of Antler	98
Stonework	100
Objects of Earthenware	102
Pipes	102
Pottery Receptacles	103
Algonkian Pottery	104
Sub-Iroquois Pottery	106
Iroquois Pottery	111
The Graves	112
Food Resources	117
Animal Foods	117
Vegetal Foods	119
Conclusions	120
Bibliography	125

FOREWORD

ABORIGINAL sites within the limits of New York City have almost entirely disappeared, owing to the steady growth of the municipality, hence it is of importance to archeology and history that the few remaining camp- and village-sites of the ancient inhabitants of Manhattan and its vicinity should be explored before the last of them are no longer traceable. Due to the generosity and interest of Mr Samuel Riker, Jr, of New York City, one of the trustees of this Museum, the explorations described in this report, as well as the publication itself, have been made possible.

In 1900, Mr M. R. Harrington made some preliminary investigations for the American Museum of Natural History on the northeastern side of Throgs neck, in the borough of the Bronx, at a site on a little peninsula known as Weir Creek point, where the small creek that gives the point its name discharges into Eastchester bay. This shellheap, situated on the southwestern side of the point, at the junction of Schley and Clarence avenues, was chosen as a promising one for archeological excavations; consequently Mr Harrington, in the fall of 1917, commenced an exploration which was continued, as the weather permitted, until April, 1918, when it was conducted by Mr Alanson Skinner, assisted by Mr C. O. Turbyfill and Mr Amos Oneroad. It is a pleasure to acknowledge the thanks of the Museum for the kind permission given by the Bronx Shore Park Development Company and to Mr Joseph Horowitz, its resident agent, for permission to conduct the exploration.

Traces of another Indian village-site were seen by Mr Skinner while passing along Sound View avenue where this thoroughfare is cut through a high, sandy knoll, midway of Clasons point, Borough of the Bronx, between the mouth of Bronx river on the east and Pugsleys creek on the west, about half a mile from the southern tip of Clasons point. At the place where the knoll

reaches its maximum height, Sound View avenue is intersected by a cut for the proposed Leland avenue (pl. VIII). A preliminary search of two shell-pits there exposed to view, seemed to indicate the site of a considerable aboriginal village, the exploration of which was commenced in the middle of November, 1918, and continued to completion. This entire work was in charge of Mr Skinner, assisted by Mr Oneroad. Permission to conduct the exploration was kindly accorded by Mr A. P. Dientz of the Sound View Improvement Company, to whom the acknowledgments of this Museum are due. The historical data on the Clasons Point site have been courteously furnished by Mr Reginald Pelham Bolton, to whom we are indebted also for the accompanying maps of survey.

It is proposed from time to time to continue the publication of results of the archeological field-work, as well as of the study of collections derived therefrom, within the limits of the City of New York.

GEORGE G. HEYE,
Director.

WEIR CREEK POINT, THROGS NECK

(THE SHELLHEAP SHOWS AS A LIGHT LINE BEHIND THE TREES AT THE RIGHT CENTER)

I.—THE THROGS NECK OR SCHLEY AVENUE SHELLHEAP

HISTORICAL INTRODUCTION

THE historical material relating to the Indian settlement on Throgs neck is necessarily meager, for the contents of the shellheaps pertain largely to a period which comparison with other local remains has shown us to have terminated prior to the arrival of white settlers. It is true, nevertheless, that on the surface of the shellheaps, and in what we have called the later pits, there was evidence of European contact; for example, the presence of foreign trade articles and the bones of swine; but these were so limited that the Indians who abandoned them either were few in number in post-Colonial time, or, as seems more probable, did not occupy the site for any considerable period. This is more forcibly brought to our attention by the facts that the relics due to civilization belong to a time decidedly later than the first arrival of the Dutch, and that there were Indian settlements nearby at Castle Hill neck and Clasons point known to have been occupied when the Hollanders bought the land. Moreover, these few foreign specimens referred to belong to a type in vogue during the Indian war of 1643. At that time, the Siwanoy having the previous year sold their holdings at Clasons point to Thomas Cornell, they in all probability removed at his order, and may well have returned for a brief period to their ancestral land at Throgs neck. This evidence also perhaps accounts for the large number of dead in comparison with the total number of later pits, for the Dutch hunted down and slew large numbers of local Indians in out-of-the-way camps. Moreover, the condition of some of the skeletons also indicates death by violence, some being dismembered and others lacking portions of their complement of bones. (See pages 54-56.)

The Indians who claimed the land on which the Throgs Neck or Schley Avenue shellheap is situated were a small Algonkian

tribe of the Wappinger confederacy, called Siwanoy.¹ The earliest reference which the writer has been able to find of their presence on Throgs neck is in the account of Captain Thomas Dermer,² who in 1619 sailed along the coast under orders from Sir Ferdinando Gorges, afterward one of the proprietors of New Hampshire. He says of Throgs neck: "A great multitude of Indians let fly at us from the bank, but it pleased God to make us victors. Near unto this we found a most dangerous cataract amongst small, rocky islands, occasioned by two unequal tides, the one ebbing and flowing two hours before the other." This, of course, was Hell Gate.

In September, 1642, John Throckmorton, or Throgmorton,³ applied to the Dutch authorities for permission to occupy the tract called Vriedlandt, or "Land of Peace," on the shores of Long Island sound, with thirty-five families, and in October of that year he settled on the neck whose name is derived from his own, receiving his patent, or "grond brief," the following year.

This colony was composed of Quakers and others who had left New England because of religious persecution. Indeed, Throgmorton was a personal friend of Roger Williams. The settlement fell during the Indian war of 1643, when eighteen persons were killed, probably by the same party of Siwanoy who, under their chief Wampage, had formerly slain Ann Hutchinson, the celebrated religious fanatic who settled near Pelham Bay.

THE SHELLHEAP

One of the most extensive Indian shellheaps in or near New York City is situated on Weir Creek point, Throgs neck, Borough of the Bronx (pl. 1). The southwestern side of this point, which contains the angle formed by the junction of Schley and Clarence avenues, is a sheltered nook, warm and well-drained at all seasons of the year. An abundance of fish, shellfish, and fowl still may be

¹ Ruttenber, E. M., *Indian Tribes of Hudson's River*, p. 81. Beauchamp, Wm. M., *Aboriginal Occupation of New York*, *Bull. 32, New York State Museum*, indicated on tribal map. Skinner, Alanson, *Archæology of the New York Coastal Algonkin*, *Anthropological Papers, American Museum of Natural History*, vol. III, pp. 231-2.

² Jenkins, Stephen, *The Story of the Bronx*, N. Y., 1912, p. 40.

³ *Ibid.*, p. 30.

INDIAN SHELL HEAP AND BURIAL PLACE AT WEIR CREEK POINT, THROGS NECK. FROM THE SURVEY BY REGINALD PELHAM BOLTON
(SCALE 48 FEET TO THE INCH)

found, though in yearly diminishing numbers, in the surrounding waters of Weir creek and Eastchester bay. In pre-Colonial times, when the region was heavily wooded, many land mammals, such as elk, deer, and bear, were common. A couple of springs, one now submerged near a great rock that is covered at high tide, furnished fresh water. Thus this little hollow by the shore nestling under the upland was wholly sufficient for Indian needs.

The southeastern part of this shellheap deposit, shown on the map (pl. II) as Shellheap A, is of considerable extent, the shells in some places reaching a depth of from four to five feet. This part of the heap was long supposed to be stratified with progressively ascending cultural layers; in fact, Mr Harrington in his earlier work¹ reported this to be the case. The strata not being perceptible to us in our more extended work, the deposit was divided into three arbitrary sections, namely, lower, middle, and upper, and all objects found were segregated according to position. At the conclusion of the work a careful quantitative analysis was made, which resulted in showing certain differences between the top and the bottom of the deposit. These will be commented on in our conclusions.

The northern part of the shellheap, called Shellheap B, was composed of a single layer, too thin for division into strata. This layer was irregular in shape, and its greatest depth, near the shore, was about 2½ feet, varying as it extended inland to 5 inches some 75 feet from the bank. Everywhere barren patches occurred, which however showed signs of occupancy, such as burnt stones and chips. Pits, as may be seen from the map, were not infrequent, and were both ancient and probably historic.

Artifacts of stone were picked up on the beach. Some of these had no doubt been washed from the shellheap, while others may have been lost on the shore by the Indians. As all these objects had been washed and mingled by the tides of centuries, their classification by age or position was not possible. Among them were banner-stones, gorgets, net-sinkers, hammerstones, arrow-points, and celts.

¹ Quoted by Skinner, Alanson, *Chronological Relations of Coastal Algonkian Culture, Proceedings of the Nineteenth International Congress of Americanists*, Washington, 1917, p. 57.

Along the northern part of the beach stretches what may be termed a secondary shellheap, composed of oyster-shells and small relics washed from the great heap and redeposited by the action of the waves, along the upper reaches of the strand. This heap contained only the lighter and more durable objects, such as arrow-points, the heavier artifacts, such as axes, being left on the beach, while potsherds and bones had been destroyed by the waters.

Throughout the shellheap were found pits, dug for the reception of refuse and for other purposes, and west of Deposit B, on the edge of the upland, occurred a particularly notable group of these, which, according to their appearance (the shells being undecayed), and their contents, we have placed in a later group than the ancient pits in the heap itself. These pits are indicated on the map by a special symbol (X). A few other examples of later pits were also found in the shellheaps. An account of the pits follows.

THE LATER PITS

Pit 1: A large oval pit, measuring 6 ft. 10 in. from north to south and 5 ft. 8 in. from east to west. Near the surface a layer of oyster and other shells, 14 in. thick, was first encountered; in this were found a number of sherds from an Algonkian earthen vessel, two bone awls, and a stone arrowhead. Under this shell layer a confusion of human bones was next encountered, the bones representing two individuals, but only one skull being present. Beneath these two bone burials and in the northern side of the pit was unearthed the skeleton of a young woman, at a depth of 2 ft. 11 in.; the knees were flexed to the left, and the head was directed northeastward, face down. At the same depth a fourth skeleton was found, on the southern side of the pit; this was flexed on its abdomen, with the head pointing northwestward and the face to the left; the folded legs were turned to the right; the bones were fairly well preserved in this instance, whereas only portions of the others were recoverable in good condition. Many fair-sized stones lay in this pit under the skulls, and one weighing nearly 100 pounds was placed over one of the skulls.

Pit 2: This had been a roundish hole in the stony soil, now

filled with much-blackened earth and a few shells. Large stones had apparently been rolled into this pit by the natives, including one of about 200 pounds. A few animal bones occurred, and, at the bottom of the pit, 28 in. from the surface, a pile of stones lay on a broken but practically complete pottery vessel of sub-Iroquois type (pl. VII, *a*).¹ The pit was 4 ft. 3 in. in diameter.

Pit 3: This pit was 4 ft. 3 in. in diameter by 2 ft. 8 in. deep. It held large stones, a few shells, two small potsherds, and a few animal bones. The pit resembled a grave from which the body had been removed for reinterment or the bones destroyed by decay.

Pit 4, A and B: A nearly round pit, 4 ft. 1 in. in diameter by 2 ft. 3 in. deep. This pit contained only shells and black earth. Cutting into it was Pit 4 B at the southeast. This was 2 ft. deep and 2 ft. 7 in. in diameter, with the same sparse contents.

Pit 5: This pit, on the hillside below Pits 1 and 2, was almost round, being 4 ft. 4 in. in diameter, and 3 ft. 1 in. deep. It was filled with dark earth, stones, and a few shells. Among these were a few bones of animals and some potsherds, but at the bottom, which was flat, were found nearly all the fragments of a pottery vessel of modified Iroquois type (pl. VII, *b*).

Pit 6: An irregular pit, 5 ft. 11 in. north to south and 3 ft. 3 in. east to west, depth 2 ft. 8 in. It contained many shells, principally scallops, some dog-bones, a few deer-bones, and a broken bone awl.

Pit 7: A large pit, nearly round, 8 ft. 8 in. in diameter, 3 ft. 3 in. in depth. This pit contained dark soil mingled with a few shells, dog and other animal bones, potsherds, a triangular point, and a hammerstone. In the center of the pit, at the bottom, was a pile of stones weighing 10 to 50 pounds, under which lay the upper portion of the skeleton of a person about fifteen years of age. The skull was pointed northwestward; the body lay on its back with

¹ This sub-Iroquois pottery is a blending of the native Algonkian pottery, which is characterized by a pointed base, oval body, and wide mouth, with the round-bottomed type in vogue among the Iroquois, which also has a narrow constricted neck and an ornamental round or angular collar, further elaborated by three to four peaks or humps at intervals along the rim. In the sub-Iroquois specimens the rim and its ornamentation are usually modified and much less exaggerated than in the true Iroquois forms. See *Archæology of the New York Coastal Algonkin*, *Anthropological Papers of the American Museum of Natural History*, vol. III, pp. 222, 223, and fig. 35 f, g.

elbows at the sides and hands on the shoulders. A stone weighing 30 to 40 pounds lay on the skull, and another, smaller and flatter, had crushed the chest. On the pile of stones were fragments of the skull of an aged person, minus the lower jaw. A few small human bones were found scattered in the pit.

Pit 8: This pit was 3 ft. in diameter and 1 ft. 5 in. deep. In the densely packed shells was the skeleton of an old dog, headed westward, lying on the left side. Nearby was a rude net-sinker of stone.

Pit 27: This pit was shaped like a round bowl with a flaring rim, the edges of the rim being carefully walled round with water-worn stones. In breadth the pit was 4 ft. 3 in. and in depth 2 ft. 5 in. Its principal contents were a large quantity of closely packed oyster-shells, which appeared fresh and new; many of them were charred black, and in some cases masses were even reduced to lime by intense heat. Clam-shells (quahog) and scallops also appeared sparingly. Charred hickory-nuts and walnuts, calamus roots, charcoal, burnt reeds, and a portion of a charred wooden tool (an awl or a needle, perhaps), were found. Two bone awls, a broken bone arrowpoint, a notched stone net-sinker, and part of an earthenware vessel of sub-Iroquois type were obtained.

Pit 28: A round, bowl-shaped pit; breadth 3 ft. 6 in., depth 2 ft. 9 in. This deposit was composed of oyster, hard clam, and mussel shells, fresh and bright, as in Pit 27, but more loosely packed, with occasional spaces where the dirt had not sifted in. The bottom of the pit had been subjected to severe burning, and burnt earth, calcined shells, and charcoal abounded. In several large areas the shells had been completely reduced to lime, portions of which were saved. A few deer- and fish-bones, one charred hickory-nut, a flint chip, part of a well-polished bone awl, and a few sherds of two vessels (one a small toy jar of Algonkian type, perhaps the size of a teacup), were found. This pit, which was close to Pit 27, seems to have been dug and filled contemporaneously with it.

Pit 30: A round, bowl-shaped pit, the bottom and sides of which were completely walled up with small cobbles—an unusual feature. It held shells of oysters, scallops, hard and soft clams, and

mussels; also ashes, charcoal, burnt hickory-nuts, quartz chips, abundant deer-bones, the butt of a polished bone awl, and some Algonkian potsherds.

Pit 38: An oval pit, 7 ft. long, 4 ft. deep, and 4 ft. 8 in. broad. A large, flat boulder of about 300 pounds weight covered the top. The shells appeared to be relatively recent. At the bottom was a group of well-burnt fire-stones. The contents were a finely cut shell cup (pl. IV, *n*), a small bone awl, a few sherds, deer-bones, and the familiar curved bone from a raccoon.

THE ANCIENT PITS

Omitting those pits the form or contents of which were negligible, there remained the following:

Pit 12, of great size, 8 ft. 8 in. in diameter by 5 ft. 10 in. deep, was of truncated cone shape in cross-section. It was filled chiefly with large boulders.

Pit 14, of oval shape, 3 ft. 4 in. long, 2 ft. 2 in. broad, and 5 ft. 3 in. deep, was notable because it was dug directly under the shellheap, which later was deposited over it. It held one potsherd.

Pit 15, unlike the preceding, had been dug down, through the shellheap, from near the surface. The heap was here 2 ft. 8 in. deep; the pit was 5 ft. 4 in., and antedated it to some extent. The pit was 7 ft. 4 in. in diameter and held a few sherds.

Pit 17: At a depth of 1 ft. 10 in. a stone slab weighing about 20 lbs. was found. Under this was the flexed skeleton of an infant, lying on its left side, headed westward. A stemmed quartz arrow-point lay below the knees. The earth was discolored and black for 8 in. beneath the remains.

Pit 18 was an ancient pit dug from near the bottom of the shellheap down into the virgin earth, but *Pit 19* was cut in from near the top.

Pit 20 was semilunar in outline, and *Pit 22* was of V shape, the arms measuring from tip to apex 8 ft. 3 in. and 11 ft. respectively. They were both about 3 ft. broad, and the depth varied from 2 ft. 6 in. to 3 ft. The apex of the V pointed down the slope.

Pit 26 was large and of irregular shape, dug on the western side

of a boulder 7 ft. long. The pit measured 11 ft. long, 4 ft. 3 in. wide at the broadest point, and 3 ft. deep. It held a few shells, deer-bones, a notched stone maul, and a grooved axe (pl. v, c).

Pit 29 was dug in from about the center of the heap, the upper half of the shells having accumulated later.

Pit 31 was an old pit which had been cut into in more recent times by the Indians who dug the later Pit 28. It held nothing.

In *Pit 32*, a little cache of four arrowpoints, all stemmed, was found at the bottom.

Pit 36 was quadrangular, being diamond-shaped in outline.

Pit 37 was really a fireplace, a small round basin of stones, with a pile of hard clam-shells, 18 in. high, and two large potsherds over it.

Pit 40 was shaped like an inverted truncated cone, 3 ft. in diameter at the surface and 18 in. deep. It was under the north-eastern corner of a large patch of shells that constituted a small, independent, shallow heap. In it were the badly decomposed remains of a baby's skeleton, and some coarse, disintegrated sherds of a half-fired vessel of archaic Algonkian type.

It will be noted that these ancient pits are more irregular in form than the later ones. Elk-bones were found frequently among their contents, but this was not the case with the later pits either at this site or at Clasons point.

BONE ARTICLES

The Schley Avenue shellheap was fairly prolific in bone implements, although on the whole their quality is poor, and this is true also of specimens of worked antler. No great variety in form was observable, but some rare and interesting types were collected.

Of about one hundred whole and fragmentary bone awls, the great majority were merely sharpened splinters of deer- or elk-bone (pl. III, b-f), showing no care in workmanship. None were made of bird-bone. Figs. *j*, *k*, of the same plate, illustrate awls from the newer pits that exhibit some care in their manufacture and have polished surfaces. Fig. *i*, from near the surface of Deposit B, is a worked and polished spine from a sting-ray, both sides of which

BONE IMPLEMENTS FROM THROGS NECK

are slightly scored near the point, in addition to having the natural notches near the base. Similar awls, or possibly projectile points, were found by the writer in pits on the Bowmans Brook site, Mariner's Harbor, Staten Island.¹ They apparently belong to the era of early Iroquois influence, although not themselves a part of the alien culture complex.

Pl. III, *a, n*, represent awls made by merely sharpening the small end of the ulna of the deer, leaving the distal end as a hand grip, and fig. *m* is a carpal bone from the same animal utilized in a similar manner, but showing an unusual amount of labor. Fig. *l* shows a perforated awl or needle, flat and broad at the base. A similar but neater specimen was collected by Mr Reginald Pelham Bolton in a shell-pit containing two dog burials on Seaman avenue, Manhattan Island.²

A bone needle, broken but showing the original to have been flat and perforated in the middle, is illustrated in pl. III, *g*. Such are not very abundant, but are known from many local Algonkian sites, and are far commoner in the Iroquois country. In this example the eye was made by grating deep longitudinal grooves on both sides of the implement until they were cut through at the center. The needle is made from a rib of some animal. Similar needles are used to this day by the Algonkian tribes of the middle west and north in snowshoe making and for sewing bullrushes together to make mats. The writer has described the form in his paper on the Archeology of the New York Coastal Algonkin.³

A new type of bone awl from the tidewater Algonkian region of New York and New Jersey is shown in the six specimens illustrated in pl. III, *o-t*. These awls are peculiar in that they are not only well made and polished, but the butts terminate in a deeply notched head, the notches perhaps having been made to facilitate suspension. Fig. *p* shows the process to have been that of grating with a flint flake or knife, the scores later being ground away. This seems to

¹ Skinner, Alanson, The Lenape Indians of Staten Island, *Anthropological Papers of the American Museum of Natural History*, vol. III, p. 45, pl. X, figs. 20, 21.

² *Anthropological Papers, American Museum of Natural History*, vol. III, p. 88, and fig. 7c, p. 87.

³ *Ibid.*, p. 229.

be a true and archaic Algonkian form, for these awls were found at all depths in the shellheaps. They were subsequently found by the writer in the shellheap at Inwood, Manhattan Island, and in the later pits at Snakapins village at Sound View and Leland avenues, Clasons point. That they have escaped discovery and description until now is rather remarkable.

Fig. *h* shows a nondescript bone sliver, having a sharp, chisel-like and somewhat worn end, which has been partially cut in two by sawing a groove about it. Its purpose is problematical.

It is worth noting that no worked tortoise-shell, so common at Sound View and Leland avenues, was found in the Schley Avenue shellheap. Probably tortoise-shell cups and rattles came later.

ARTICLES OF ANTLER

Two varieties of antler were used for making implements by the Schley Avenue Indians, namely elk and Virginia deer, according to the specimens recovered.

Wedges of elk- and deer-horn, with rounded butt and chisel-like edge, were not infrequent deep in the heap, but none were found in good condition for illustration.

Pl. IV, *g*, represents a heavy section of antler, cut off at the base with the usual stone knife, and slightly hollowed, as though for use as a handle. Like all the other antler specimens found, the workmanship displayed is of a low order. The smaller end is broken.

Fig. *f* shows a clumsy, ill-made antler cylinder, one end being somewhat enlarged. It seems too coarse to be a chipping tool for flint-working, yet that such it was is indicated by the wear on the smaller end. It is a fairly common form on most old Algonkian sites. The later generations hereabouts made these implements better, dressing them down to a thin and shapely cylinder.

Fig. *a* is in shape quite like the preceding, but is hollowed rather deeply at the larger end, as though to receive a pointed object. Very likely it is a handle for a bone sliver awl.

Figs. *b-e* exhibit four of the usual rough antler arrowheads from this site. They retain for the greater part the natural shape

ANTLER, SHELL, AND OTHER OBJECTS FROM THROGS NECK

of the prong tips from which they were cut, with little attempt at sharpening. All are more or less hollowed at the base to be fitted on the arrowshaft and fastened with some adhesive substance. Fig. *e* has one barb, whereas most of the antler points from Schley avenue are without this feature.

Fig. *b* has a scale of antler flaked off at the base, and shows the form and approximate depth of the conical boring made for the shaft end.

ANIMAL-TOOTH PENDANTS

Pl. IV, *h*, *i*, represent two large canine teeth of the black bear, one grooved at the base of the root, and one perforated for suspension. They are probably from a necklace. Both came from well under the surface of the shellheap and are consequently not of the later period. In this region pendants made of bear-teeth, or indeed the teeth of other animals, are not known except in the case of the specimens illustrated, although they are abundant throughout the Iroquois country. In fig. *i* the boring is roughly done with a stone tool.

Figs. *j*, *k*, illustrate two small canine teeth from the otter and the dog, perforated as pendants. These too are not relics of the more recent occupancy.

IMPLEMENTS OF STONE

Grooved axes were not numerous at the Schley Avenue site. Three only were obtained, two of these in the lower part of the heap and one in an ancient shell-pit.

Pl. V, *a*, *c*, illustrate the two best specimens, *c* being the example from Pit 26. It is typical of this locality, and, like the other two found, is surrounded by a groove. *a* shows an axe which, when it had become too dull for chopping, was used as a club or a maul until finally the blade was nearly battered away.

Fig. *b*, is a crude, notched axe of light-gray quartzite, found under the bottom of the shellheap at its deepest part. When unearthed it was thickly coated with an accumulation of lime carried by the seepage of water through the shells, as was often the case with the older specimens at the Schley Avenue site.

Figs. *d*-*g* of pl. v show four of a total of fourteen celts from Schley avenue. Fig. *d* is a well made, pecked, and partly polished celt from near the surface of the heap that belongs to a later time.

FIG. 1. —Celt showing secondary usage as a "sinew stone."

The celts from within the heap are crudely made, principally by sharpening flat pebbles approximating the shape desired.

Fig. *e* of pl. v is a chipped celt found on the beach. It is not a common form hereabouts.

Fig. 1 exhibits a celt interesting more on account of its secondary usage than otherwise. This implement became dull, was used as a hand-hammer for a time, and then was subjected to long service as a "sinew-stone," as shown by the deep-worn scores in its side.

Pl. v, *g*, is a narrow, chisel-like example from the beach, which would serve nicely as a woodworking tool.

In fig. *f* we have a chipped, celt-like tool of the type found so abundantly in the steatite quarries of Massachusetts, Connecticut, and elsewhere, and used as a pick in hollowing-out soapstone vessels. Fragments of a steatite pot were found at Schley avenue, and some, brought rough-hewn from the quarries, may have been finished there.

The mouthpiece of a stone pipe was found, but its form cannot be conjectured from the fragment.

Five banner-stones, whole or fragmentary, were found in all, of which three came from the heap and two from the beach. Pl. v, *i*, illustrates a crude example, grooved on one side, found at the very bottom, in yellow soil beneath the shells of Deposit A. It is a type found throughout tidewater New York, Pennsylvania, Connecticut, and probably New Jersey, although the writer does not recall having found or seen a similar example from the latter state. Presumably the form is archaic.

Fragments of two banner-stones, both perforated with a hollow-

PECKED AND POLISHED STONE IMPLEMENTS FROM THROGS NECK

core drill, were found about the middle of the heap. Mr M. R. Harrington says¹ of this form: "I have never discovered any of the drilled variety in a shell heap, but have heard of their being found."

A small fragment of a perforated banner-stone was picked up by the writer on the beach at Schley avenue, and also the one shown in fig. *k* of pl. v, an unusually perfect specimen, carefully pecked into a kind of modified butterfly shape, with pronounced median ridge, but as yet not perforated. The material is a banded slate-like stone, which, had it been smoothed, would have given a handsome appearance. The specimen was found among rocks on the southern portion of the beach, and was probably under four feet of water at high tide. It was presumably washed from Deposit A, which here comes close to the shore.

One gorget of the single-holed or pendant form, in poor condition, was likewise discovered on the beach. From various levels in the heap, except the top, fragments of at least five others were found, four apparently of the variety having two or more holes; the other is indeterminate. Pl. v, *h*, *j*, represent two of these, both of rather unusual material. Fig. *h* is made of what appears to be clay concretion, and has one end missing; the fragment remaining, however, shows three holes, across one of which the specimen was broken, and a fourth, partly reamed through from both sides. Fig. *j* is half of a large, flat, tablet-like specimen, which was further broken by one of the workmen, who struck it in digging. The substance is a pinkish stone resembling the fibrous serpentine so common on certain parts of Staten Island. Neither specimen is particularly well made, nor has either any claim to a beautiful or ornamental appearance.

Of the thousand or more objects found in the Schley Avenue shellheap, few are net-sinkers and hammerstones. Most of the latter are pitless, being mere beach pebbles shaped in use by battering. A few were pitted on both sides to facilitate gripping with the hand. Some of the pitless stones were worn by grinding rather than by hammering. The net-sinkers were of the typical local

¹ Ancient Shell Heaps near New York City, *Anthropological Papers, American Museum of Natural History*, vol. III, p. 171.

form—pebbles notched in two sides for attachment to the net. Two grooved stones, possibly small clubs or hammers, perhaps grooved sinkers, were obtained. These, as is usual here, had the grooves extending about the longer axis. One was found on the beach, at high tide. A number of the so-called notched sinkers seem to have been hafted and used as hammers, as is shown by their abraded ends.

The most abundant articles in all the heap, on the beach, and the surface, were arrowpoints, ordinarily made of local white quartz, obtained both from the native quarries in Westchester county and from beach pebbles. Others, of dark flint, red, yellow, green, and blue jasper, chalcedony, and argillite, were found.

The forms, as shown in pl. VI, *a-i'*, are manifold. Comment on the occurrence of the triangular points (*m-p*, *u-w*) has been made, and it may be added that the forms found vary somewhat from the true Iroquois type, being broader and more barbed. Some specimens have one barb longer than the other (*m*, *o*). It remains to be remarked again that our investigations corroborate the opinion that the double-ended type (pl. VI, *a-e*) is archaic,¹ and apparently did not survive until the beginning of Iroquois influence. Figs. *g'-l'* represent the elongate form, which was also common in the depths of the heap, but probably survived until the last occupancy.

Figs. *k'*, *n'-q'* show a group of the large points popularly called "spear-heads"; but there is reason to doubt the use of the spear by any of the Indians of New York state, as has been discussed by Beauchamp.² The fact is, spears are not mentioned by any of the contemporary writers on the local Indians. Nevertheless, some of the coarse, heavy forms found do not seem adapted to any other use.³ Fig. *n'*, the largest flint found at Schley avenue, is composed

¹ Skinner, Alanson, Chronological Relations of Coastal Algonkian Culture, *Proceedings of the Nineteenth International Congress of Americanists*, Washington, December, 1915.

² Aboriginal Chipped Stone Implements of New York, *Bull. 16, New York State Museum*, p. 38.

³ Since the above passage was written, the author has found a facsimile of a native drawing of an Indian bearing a spear in his hand, appended to the Hackensack and Tappan Indian deed for the sale of Staten Island to Hendrick Van der Cappellen in July, 1657. This may be found in Fernow's Documents Relating to the Colonial History of New York, o.s. vol. XIV, n.s. vol. III, p. 394.

CHIPPED STONE IMPLEMENTS FROM THROGS NECK

of a mottled gray and yellow chalcedony. It came from the undisturbed yellow soil under the deepest part of Deposit A. Fig. *o'* is of coarse, white quartz, and is unusual in that it has two notches in one side. The second or upper of these notches, moreover, has been made by pecking instead of being chipped. Fig. *q'* shows a thinly wrought fragment of a knife-blade of gray flint resembling the stone commonly used in central and western New York.

Figs. *j'*, *l'*, represent two drills, the only perfect specimens of this class obtained. Fig. *l'*, of dull-red jasper, is from the beach. Fig. *j'*, of green jasper, was found in the shellheap.

Fig. *m'*, a rare form in this locality, is a broken white quartz triangle that has been rechipped to make a serrated scraper. One or two serrated scrapers from Staten Island are in our collection, but otherwise they seem almost absent from New York sites except near the Niagara frontier.

OBJECTS OF SHELL

Shell objects are uncommon in this region, in spite of the fact that raw material was so abundant, and that all the early writers speak of the manufacture and use of wampum. Nevertheless, the writer has yet to see a single real wampum bead from any tidewater site that antedates extensive traffic with the whites. Those, principally from Long Island, that have come to his attention, date from well within Colonial times, and were found in graves containing also brass kettles, glass bottles and beads, and other trade articles in quantities. Occasional perforated olivella shells, a few small disc beads found with some of the former by Mr George H. Pepper at Tottenville, Staten Island, and the list from prehistoric sites is complete. Nevertheless, there is no reason to doubt that wampum of some kind was sometimes made in pre-Colonial times. At Glen Cove, Long Island, Mr M. R. Harrington found quantities of the cores of the columellæ of the periwinkle (*Buscyon carica* and *B. caniliculata*), "showing all the different steps in the manufacture of the white wampum, from the almost unworked shells to the ground and smoothed cylinders partly cut in lengths suitable

for beads. A number of these were found bunched together with a white quartz flake and a small bone awl, as if they had been in a bag."¹ At Schley avenue, cache No. 2 contained a heap of twenty prepared conch columellæ, and similar deposits are not infrequent on many local sites. Ninety-four were found in a grave at Tottenville, and the writer collected thirty-five in a fireplace at Inwood, Manhattan Island.

At the extreme tip of Castle Hill neck, not far from Schley avenue, and within sight of the excavations later made on Clasons point, is a shellheap almost entirely composed of the débris of wampum making—thousands of periwinkle cores and vast numbers of roughly-squared fragments from the blue lip of the hard clam, used in making the "black" or purple wampum. However, a glass bead was found in this deposit, denoting contact with whites.

Van der Donck, writing in 1656,² says of wampum:

"That there should be no miserly desire for the costly metals among natives, few will believe: still it is true, the use of silver or any metallic coin is unknown among them. The currency which they use in their places to which they resort is called *wampum*, the making and preparing of which is free to all persons. The species are black and white, but the black is worth more by one half than the white. The black wampum is made from conch shells³ which are to be taken from the sea, or which are cast ashore from the sea, twice a year. They strike off the thin parts of those shells and preserve the pillars or standards, which they grind smooth and even, and reduce the same according to their thickness, and drill a hole through every piece and string the same on strings, and afterwards sell their strings of wampum in that manner. This is the only article of moneyed medium among the natives, with which any traffic can be driven; and it is also common with us in purchasing necessities and carrying on our trade; many thousand strings are exchanged every year for peltries near the sea shores where the wampum is only made, and where peltries are brought for sale."

Pl. IV, *n, o*, show two cups cut from the shell of the periwinkle. One was found near the surface of Deposit B, the other in Pit 38, one of the later pits. No specimens of this kind have ever before been reported from tidewater New York, but somewhat similar

¹ *Anthropological Papers of the American Museum of Natural History*, vol. III, p. 178.

² *New York Historical Collections*, n.s., vol. I, p. 206, New York, 1841.

³ This is a slip of the pen, as the black or purple wampum was made from the lip of the hard clam (*Venus mercenaria*).—A. S.

articles are known from the Iroquois country in this state and in Canada. Neither of the two specimens is made with metallic tools, both showing the laborious saw-cutting which characterizes the work of a stone knife. They form a new accession to the list of coastal Algonkian implements.

Pl. IV, *m*, represents a small disc bead of shell, washed from Deposit A and found on the beach. A few similar beads have been collected, notably at Tottenville, Staten Island, but they are rare. Nevertheless, they are found by thousands in the Iroquois territory, especially from the Niagara frontier westward into Ontario.

METAL OBJECTS

A bead of native copper, made from a small piece of the metal hammered flat and rolled into a little tube, was found by Mr Harrington in his excavations for the American Museum of Natural History, conducted in 1900. Nothing similar was obtained by our explorations.

A triangular arrowpoint (pl. IV, *l*), cut from the side of a worn-out brass kettle, in all probability, was found by our party in Deposit B, near the surface.

TRADE OBJECTS IN GENERAL

In addition to the brass arrowpoint noted above, several other trade objects, presumably of Dutch origin, were found. These consist of a blue glass trade bead, several gun-flints, and round leaden bullets of small caliber, including a buckshot. Stems of trade pipes of white clay, bits of china, and bottle glass also occurred, but whether all are attributable to the later Indians is doubtful.

POTTERY

The pottery from the Schley Avenue shellheap is inferior, on the whole, but that of the later pits, on the edge of the upland, is of rather good quality. The shellheap potsherds, except a few from the topmost layers, are all Algonkian of archaic type, and so badly disintegrated, when possessed of any character or markings, as to be without interest for the purpose of illustration.

A portion of the rim of a large and more graceful Algonkian jar was found in Pit 1, one of the later group. This vessel was constricted slightly at the shoulder, but the rim flares outward a little at the edge. It is decorated about the neck with encircling, parallel bands of dots impressed with a roulette, and with short, slanting lines of the same character inside the edge of the rim. Its color is light reddish brown.

Pl. VII, *a*, represents the smaller of two sub-Iroquois vessels found in later pits (Nos. 2 and 5); it is 12 in. high, $9\frac{3}{4}$ in. in greatest diameter, and measures $7\frac{1}{4}$ in. across at the mouth. This jar, which is of mottled chocolate-colored ware, is somewhat heavier and more clumsily modeled than the similar pot from Leland avenue figured in pl. XII, *a*. On the other hand, it is more elaborately decorated, and is more Iroquois in style, since it has the customary four peaks on the rim. The rim is banded with three parallel rows stamped with a stick wrapped with fine thread, and bordered at top and bottom by short, vertical lines applied with the same instrument. The space under the four peaks is occupied, in two cases, by a checker design, made in the same way; in the case of the third, the horizontal lines do not cross the two vertical center ones. The design is chipped away from the fourth peak. Some attempt has been made to ornament the neck under the rim with crude chevron patterns scratched in some cases with the thumb-nail or a flint chip, or perhaps with a keen bone awl, in others with a blunter object, as a bone or a wood sliver. These chevrons are cross-hatched in several instances. The vessel's capacity is perhaps a gallon and a half.

Pl. VII, *b*, is an unusually large vessel of sub-Iroquois style. It is larger than the last, being $13\frac{1}{2}$ in. high, 12 in. in maximum diameter, and $9\frac{7}{8}$ in. at the mouth. Its capacity is about two and a half gallons. The material is the usual tempered clay, mottled yellow and black. The vessel is heavy and not graceful. The entire body of the jar is fabric-marked outside, and the scores of the scraping tool are still visible within, which is not true of the preceding specimen. On one side a series of holes made with a stone drill, and facing each other, show that the vessel had met

somewhat similar figure is seen on a large jar in the Museum of the American Indian, Heye Foundation, obtained at Shelter island, Long Island, while other specimens were found at the great Munsee Indian cemetery at Montague, New Jersey, by Messrs Heye and Pepper.¹ Throughout the Mohawk-Onondaga territory this design is old and well established, and has been described also from Hochelaga, at Montreal. The writer obtained abundant specimens for our collections from a site at St Lawrence, Jefferson county, New York.

Just how these pronounced Iroquois forms came to be introduced among the tidewater Algonkians of New York is not difficult to judge. As has been mentioned, doubtless the first ideas filtered down the Hudson from the Mahikan and their dependents, who were in contact with the Mohawk. Later, the Mohawk, hoping to become powerful, and possessing guns obtained from the whites, overthrew all their Algonkian neighbors, and raided, so says history, all tidewater New York, even subjugating the tribes of eastern Long Island. It is probable that prisoners held in the Mohawk valley returned with new ideas. The Mohawk were not accustomed to carry their women on their raids, and their warriors were never potters.

CONCLUSIONS

Analysis of the specimens found in Deposit A, segregated according to our arbitrary ruling, shows that the so-called "lozenge-shaped" arrowpoints (pl. VI, *a-e*) were indeed archaic, being abundant at the greater depths, but disappearing as the topmost layer was reached. A long, narrow-stemmed form (figs. *g'-i'*)¹ was equally old, but was still in use when the first white settlers arrived. As for the triangular point, only two were found lower than the surface layer of the entire heap, although eleven came from close to the top, and several were found in the later pits.

Scarcely any pottery was found at the bottom of the shellheap, and the scanty sherds from the center are of very coarse, poorly fired ware. Enough fragments were secured to show that these

¹ *Contributions from the Museum of the American Indian, Heye Foundation*, vol. II, no. I, pl. xxii b, xxiii b.

vessels were of the pointed-bottom, archaic, Algonkian style, made of a crumbly red clay, heavily tempered with coarse sand. In the middle section of the heap, objects of stone, previously of good workmanship, especially in the lowest part, lapsed somewhat, and more bone and antler implements came into vogue, though these are poor and ill-fashioned.

A difference was noted between artifacts found in the surface soil and the first few inches of shells, and those from all the rest of the deposit. Here were triangular arrowpoints of flint, fragments of well-made pottery of Iroquois form, including even the deep-notched angle, quadrangular rim, and conventional human face of well-known Mohawk type. In the pits belonging to this period, some of which occurred also on the edge of the upland, slightly removed from the ancient dump-holes, were jars of sub-Iroquois style, triangular arrowheads, polished bone implements showing careful workmanship, and shell cups. Near the surface, too, our labors disclosed a glass bead, a brass arrowpoint, bullets, gun-flints, stems of trade pipes, and other objects of the early Colonial barter period.

Although primarily a shellheap site, pits dug by the Indians occurred to the number of forty-two. Of these, about a dozen (indicated by a special symbol on the map) were of relatively modern date, being probably post-European, and belonged to the small settlement of Siwanoy Indians who seem to have camped on their old ground after an absence of some years. To these people may also be attributed Iroquois and late sub-Iroquois remains and Indian trade articles, scattered sparsely here and there over the top of the shell deposits.

Most of these modern pits occurred on the edge of the upland where the principal burials were found, with the exception of a few (Pits 27, 28, and 30, in particular) which were in the hollow. Besides the difference in the nature of their contents, these later pits contained far more specimens than the ancient ones, and the condition of the shells in them was different, for they were fresh and hard in appearance, still retaining their sharp edges, and not being broken and crumbling to lime like the shells in the ancient pits.

These pits, Nos. 1 to 8 and 42 on the upland, and Nos. 27, 28, 30, and 31 in the hollow, contained six human skeletons and a dog burial, the latter being a custom apparently not in vogue in older times. In addition, these thirteen pits were fairly rich in relics, ten having specimens, of which seven contained bone implements to the number of ten, two had stone objects, one a shell cup, and nine pottery, including two restorable vessels of sub-Iroquois style. About a quarter of a mile north, on the upland, Mr Harrington opened several pits a number of years ago, finding two dog burials in a stone cist at the bottom of one.¹ These remains seem also to have been of the later period.

Of the thirty-nine ancient pits in and near the shell deposits, ten contained no artifacts or bones of any description. None had bone implements, eleven held potsherds, generally merely a handful of crumbling clay not worth saving, often no more than one or two small bits. One had a plain quahog shell used to hold red paint, but unworked in any way. Five held stone objects, including six arrowpoints, all stemmed, and two contained hammerstones. In Pit 26, the most interesting ancient pit opened, were found a notched maul and a grooved axe. A poor people, these old pit-diggers, judged in the light of their successors.

Two caches were found, the first made up of four stemmed arrowheads, the second a little hole in which had been carefully piled twenty columellæ or inner whorls of the periwinkle, ready to be ground into polished cylinders and cut and perforated to make white wampum beads.

Evidently the Schley Avenue shellheap marks a place long favored for summer residence by the local Indians, particularly the Siwanoy, or rather their ancestors. In succeeding years an accumulation of débris from their summer shell-fishing industry grew to a depth, in some parts of Deposit A, of four to five feet. During this occupancy no great change came into the life of the natives. They learned to make crude pottery, an art almost if not quite unknown to them when the first wandering hunters arrived. They

¹ Harrington, M. R., *Anthropological Papers of the American Museum of Natural History*, vol. III, p. 176.

commenced to favor bone and antler as material for their tools. Their stonework was always well advanced; they knew first the grooved, then the perforated, banner-stone, the two or multiple-holed gorget, the stone pipe, the grooved axe, and a crude celt made of a sharpened pebble, with many forms of stemmed and notched projectile points and blades.

Then for some unknown reason there came a time, perhaps not for long, when the spot was deserted, and when the inhabitants returned they had undergone a considerable change. They were cognizant of other peoples than themselves, and their immediate and closely allied neighbors. A new power had arisen in the north. An alien people of higher culture had shown them how to make better pottery and bone tools, and had caused them to abandon many of their laboriously and skilfully wrought implements and ornaments of stone for a few simple types. The name Mohawk, while synonymous with dread, still compelled admiration. Nor was this all. Scarcely had this new stimulus become felt when the first white colonists arrived, and very soon their more durable utensils and implements commenced to supersede those of native make. Glass beads, brass arrowheads, cheap white-clay pipes, and guns drove out the shell beads, the flints, the native pipes, and the bows and arrows of the Indians.

It was just before the final transition that the Siwanoy returned to the Throgs Neck site, well equipped with the best that local savage art could produce, and supplied with the new creations of the whites. Their last stay was brief, as witness the relative paucity of remains. Only a few pits and graves, though fairly prolific in specimens, were found, for the epoch of racial jealousy, culminating in decimating wars, was at hand, and the Siwanoy were destined to drop from power to oblivion.

Judging by the kind and quantity of the trade articles we may place the date of the last native occupancy of pure culture at Schley avenue at approximately 1550 to 1575, since it antedated the first Iroquois influence. Its first occupancy may have preceded this time by as much as five hundred years; but this, of course, is conjecture. While the bottom portion of the shellheap is probably

as old as any site in tidewater New York, none in this region, so far as reported, possesses any remote antiquity. The return of the Indians after their absence may be judged to be well within the Dutch Colonial epoch, perhaps in 1643, when the war caused by Kieft's massacre of the local tribes was raging. At this time all the tidewater peoples were unsettled and shifting, hence the stay of the Siwanoy was brief, possibly not covering any of the period after the war. The pits and later layers indicate no extended occupancy, nor are there late Colonial relics, such as tomahawks of iron, bottles, or glazed earthenware. Probably by the time these were common, the Indians had removed to Pelham bay, where they are known to have been in numbers about this period. The possibility of their having been resident at a spot not far away, during their absence from the Throgs Neck site, will be discussed in another part of this paper.

SITE OF THE EARLY HISTORIC SIWANOY INDIAN VILLAGE OF SNAKAPINS ON THE KNOLL AT SOUND VIEW AND LELAND AVENUES, CLASONS POINT

II.—SNAKAPINS, A SIWANOY SITE AT CLASONS POINT

HISTORICAL INTRODUCTION

BY REGINALD PELHAM BOLTON

MEMBER OF THE NEW YORK HISTORICAL SOCIETY

The modern Clason, or Clasons, point is usually known by its pleasure resort, situated at its eastern extremity, and the crowds of summer visitors who frequent the place have little concern in the historical character of the locality, and perhaps as small an interest in the picturesque views of marshland and rolling meadow which can be had from the trolley on the Clasons Point road, now renamed Sound View avenue.

The tract is a long promontory stretching a mile and a half from Westchester avenue to the blue waters of Long Island sound, with a width of but a few hundred yards at any part (pl. ix). Part of its ancient physical boundaries remain at this date, being Bronx river on the west side, and the winding rivulets known as Pugsleys and Wilkins creeks on the east. Its northern limit was a line drawn between the head of Wilkins creek and that of Barretts creek which extended from the Bronx river at the "Black Rock" in an easterly direction.

This tract, admirably adapted to native existence, was known to the Indians of the locality as "Snakapins,"¹ and its recent exploration, conducted by the Museum of the American Indian, Heye Foundation, proves that their occupancy of the place was a permanent one. The village-site which has been discovered and explored, affording evidences of long-continued residence, is the knoll of sandy ground, sloping to the south, situated on the western side of the old Clasons Point road, now Sound View avenue, at its

¹ Beauchamp, in his *Aboriginal Place Names of New York* (*Bulletin* 108, *N. Y. State Museum*, p. 254-5), quotes Tooker to the effect that the name *Snakapins* is perhaps derived from *sagapin*, a ground nut. This, with a diminutive termination, may well be correct.

intersection with Lacombe avenue and the projected Leland avenue.

The history of the locality is not without tragic interest. In 1643 there arrived in the locality one Thomas Cornell¹ who, perceiving the advantages of the neck, proceeded to make himself at home upon the extreme point, and established himself in a dwelling there with some members of his family. He claimed to have acquired the right to this settlement from the natives, doubtless then resident within half a mile of the point. His settlement was untimely, for it nearly coincided with the culmination of the Indian resentment of the white men's intrusion, and of their revenge for their brutal slaughter of the Wecquaeskeck who had fled before the Mohawk to New Amsterdam. On October 6 of the year named, the warriors of all the tribes near Manhattan attacked the colonists and destroyed every settlement to the gates of Fort Amsterdam.

Among those who fell victims were Ann Hutchinson and her family, on Ann's hoeck or neck, the later Pelham neck, and also the family of Thomas Cornell. His house, probably a temporary structure, was burned, his goods destroyed, and his cattle slaughtered. Cornell himself escaped on a vessel which fortunately rescued him at the most critical moment, and with characteristic tenacity he clung to his quasi-title, and, returning to the property, secured from Governor Kieft, on July 26, 1646, a "ground-brief" for Cornells neck, without other consideration than the obligation to acknowledge Dutch sovereignty over the land.

The village had near neighbors on Castle Hill point, or neck, which is within sight of Snakapins, across the meadow land through which Pugsleys creek meanders, separating the little promontory known as Screvens, or Wilkins, point. The conspicuous headland of Castle hill, later known as Cromwells neck, rises sixty feet above tidewater, and upon it Adrian Block, sailing by in 1614, saw the large wigwams of the tribe. These neighbors are said by Robert Bolton to have been Siwanoy, and it would seem probable that they, as well as the occupants of Snakapins, of Pelham

¹ Thomas Cornell was a native of the county of Essex, England, who migrated to Rhode Island, thence came to Westchester with Roger Williams and John Throckmorton, the latter of whom settled on the neck of land known as Throgs neck.

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SITE OF THE SIWANUY INDIAN VILLAGE OF SNAKAPINS AT CLASONS POINT, FROM THE SURVEY BY REGINALD PELHAM BOLTON

SCALE, ABOUT 33 FEET TO THE INCH

THE FOLLOWING IS A SUMMARY OF THE DATA OBTAINED FROM THE SURVEY OF THE SANDIA MOUNTAIN AREA.

neck, and other local settlements, such as that of Throgs neck, were of this tribe. When in 1692 the trustees of the town of Westchester secured a deed covering the entire tract from the Bronx river to Pelham, the agreement was made by local sachems, one of whom was the famous Wampage, alias "Ann Hook," resident on Pelham neck, and reported to have been the native who actually killed Ann Hutchinson, and who thereafter, in accord with an Indian custom, adopted her name as his own.

Meantime, Thomas Pell, arriving at Pelham in 1654, made a separate bargain with Wampage and his associates under the famous oak tree, by which he acquired a dubious title to the Westchester district, including Cornells neck. In 1664 he laid claim to this property, when Sarah, the daughter of Cornell (who was by that time deceased), then the wife of Charles Bridges of Flushing, took the claim into court and proved her superior title to the property, not only by Kieft's ground-brief of 1643, but by a later confirmation by Governor Stuyvesant, who had made a new bargain with the Indians for the purpose of establishing the ownership.

Pell's claim was thrown out of court, and a patent was issued by Governor Robert Nicolls in 1667, confirming the title of Cornells neck to William Willett, the son of Sarah Cornell by her former husband, Thomas Willett.

Willett built a home on Cornells neck, which existed till modern times, but fell into ruin after about two hundred years of existence, some part of its original construction being preserved in the present Clasons Point Inn.

In 1692 the trustees of the freehold and commonalty of the town of Westchester secured the deed, previously referred to, from the local Indians still residing in the locality covering the entire tract between the Bronx and Hutchinson rivers, comprising the area of the present Westchester and Unionport, and necessarily the area of Cornell's neck. This was a sort of quit-claim deed, designed to extinguish any further claim by the natives to any part of the town, and it included "all the land which we, the said Maminipoe and Wampage lay claim to," a territory of several square miles, the consideration for which was the usual paltry collection of objects

of small value with which these poor aborigines were commonly cheated out of their homes and home-lands. In this deed it was:

"2 gunns	2 adzes	
2 kettles	2 shirts	
2 coats	1 barrel of cider	6 bitts of money."

The bill of expense for these items includes six shillings for the Indians' expenses, three shillings for their supper on the occasion of signing the deed, and a total expense of £8, 4s, 6d, or about forty-one dollars for the goods named above.

The four chieftains who signed this deed were Wampage, alias Ann-hook, and Maminipoe, with others known as Crohamathense and Mamertekoh, one of whom may have been resident of Snakapins village, since its area was included in the deeds. The native witnesses to the deed were five in number, namely, Weenetonah, Tanancot, Coshehoâ, Rauh Couwind, and an Indian having the adopted name of Tom, probably the interpreter.

The later history of the neck affords no indication of what disposal was made of the natives, though we learn from the church records that Indians attended the Episcopal church in Westchester as late as 1710, and that they were of good behavior during the services.

The later ownership of the Cornell Neck property was as follows:

Thomas Willett of Flushing, son of Thomas Willett of New York City, in 1709 conveyed to his son, William Willett, "all that certaine parcell of land, contained within a neck, commonly called and known by the name of *Cornell's Neck*, bounded on the west by a certain rivulet that runs to the black rock and so into Bronx River," etc.

REGINALD PELHAM BOLTON.

THE SITE

The Clasons Point site is one of a kind termed by local archeologists a "pit site," that is, all the artifacts recovered were concealed in pits made by the Indians for various purposes, as we shall

presently relate. The wash of three centuries, the accumulation first of forest mold and then of fertilizer and top-dressing, when the land was put under cultivation, had effectually concealed all traces of Indian occupancy. Surface hunting revealed almost nothing, and the site might have remained unknown had not the writer been so fortunate as to note the shells in the eroded bank.

The nearest shellheaps lie on the eastern side of the point, not more than two hundred yards away, and extend thence to the tip. Those farther away, however, seem to be of an earlier character than the Leland Avenue heaps, for notched and stemmed arrow-points, crude Algonkian pottery, and grooved axes are reported from them. Several skeletons, supposedly Indian, were unearthed when some of the attractions at the "Park," which now occupies the point, were constructed.

THE PITS AND THEIR CONTENTS

Pit 1: Bowl shaped, 3 ft. in diameter by 3 ft. deep. It contained many giant oyster-shells, among which were found the stem and a portion of the bowl of a nearly straight pipe of plain, brown earthenware. A few sherds of indeterminate pottery were recovered.

Pit 2: A large pit of bowl shape, 4 ft. in diameter by 3 ft. 6 in. deep, containing clam, oyster, and cockle shells, large sherds of sub-Iroquois pottery, a bone arrowpoint, and a triangular point of flint.

Pit 3: Bowl-shaped, 3 ft. in diameter by 3 ft. deep; a circle of fire-stones at the bottom. Contents: the usual shells; a few rim sherds of sub-Iroquois pottery; a small, highly polished celt of dark stone (pl. XI, g), and bits of the shell of a painted tortoise. The periphery of this pit touched that of Pit 4 at the south.

Pit 4: This bowl-shaped pit was of approximately the same size as Pit 3 and contained a close-packed mass of mussel-shells, with a layer of quahogs, or hard clams, at the bottom. In the shells were found crab and lobster claws, charred walnuts, the shell of a painted or spotted turtle, with the skeleton and skull complete. About half of a small sub-Iroquois vessel was recovered, crushed

flat near one side of the pit, about 6 in. from the surface, where a plowshare had also struck it. Beneath this was a bone fish-hook (pl. x, *d*), and in the pit in general several bone awls were found.

Pit 5: This was a very large pit of the bowl type, 7 ft. in diameter by 6 ft. 6 in. deep. At the bottom was found a circle of fire-stones in situ. The shells were sparse in this pit, except that, on its western side, about midway and some 3 ft. down, was a mass of mussel-shells of two species, about 1 ft. thick and 3 ft. across. A few other shells and sherds of a small Iroquois vessel were scattered throughout this great pit from top to bottom. At the extreme base, in the northeastern corner, two human toe- or finger-bones were found. In the mussel-shells a fine, hollowed, antler-tip arrowhead (fig. 4, *a*), a bone awl, a triangular arrowpoint of dark flint with a deeply notched base (pl. xi, *a*), and two crude, notched net-sinkers were encountered. The usual deer-, bird-, and fish-bones, as well as scallop, and hard and soft clam shells, were also found. A fragment of the stem of a Dutch trade pipe of white clay also came from this pit.

Pit 6: This was a medium large, oval pit, 4 ft. long, 3 ft. wide, by 3 ft. deep. It held the usual shells, mammal-, bird-, and fish-bones, and bits of turtle-shell, some of which were identifiable as belonging to the snapping turtle. A large fragment of the rim of a fine sub-Iroquois vessel with a raised ornament like a conventional double handle (fig. 10, *d*); five bone awls, one notched and polished, with tally marks cut on the handle, one perhaps made of a fish's jaw; a large club or sinker with opposite edges notched, and a poor hammerstone without pits, were obtained. This pit also held a number of crab and lobster claws, calcined.

Pit 7: Large, somewhat conical in cross-section, 6 ft. across by 4 ft. 6 in. deep. This pit contained shells at the top under a layer of blackened earth; next a layer of clean sand, 2 ft. thick; then more shells, and, at the bottom, a number of large boulders. The fresh sand had probably been thrown in to cover the foul-smelling shells first cast in the pit. The contents of this deposit were two cut bones, a notched bone awl (pl. x, *l*), a broken black clay pipe, and sherds from several jars, one of which was Algonkian, the others

Iroquois. One of the latter was very small, perhaps a toy. There were many bird- and turtle-bones.

Pit 8: A shallow, dish-shaped pit, 3 ft. across by 18 in. deep, which contained shells, a few plain potsherds, and a hammerstone.

Pit 9: A large pit touching Pit 10 on the west; bowl-shaped, 5 ft. in diameter by 4 ft. deep. It contained sherds, a very long and well-made bone awl (pl. x, j), several hammerstones, a triangular arrowpoint, but few shells.

Pit 10: This pit formed a figure eight with Pit 9; it was 3 ft. broad by 4 ft. deep, and contained nothing but dark earth.

Pit 11: A more recent pit dug into the top of Pit 10 and cutting it on the south. It was dish-shaped, 4 ft. broad by 18 in. deep, was crammed with burnt mussels, and held several bone awls, nine net-sinkers, and some sub-Iroquois sherds of good quality.

Pit 12: This pit, which encountered Pit 13 on the south, was of bowl shape, 3 ft. in diameter by 2 ft. 6 in. deep, and contained only huge oyster-shells. A large stone of perhaps a hundred pounds' weight separated this pit from No. 13.

Pit 13: The outlines of this pit were indeterminate, but at a depth of two feet two badly decayed and plow-struck skeletons of adult males were found encased in fresh sand. The southerly skeleton was that of a middle-aged man; the other was much younger. These were tightly flexed, that is, their knees were drawn up and their arms bent, with hands in front of the faces. Each lay on the left side, headed northeast and facing southeast. A stemmed arrowpoint of dark stone (pl. xi, f) lay beside the knees of the elder, and six inches beneath them was a thin layer of shells. The heads of both were but a few inches from the large stone in connection with Pit 12.

Pit 14 A: Bowl-shaped, 3 ft. across by 2 ft. deep, containing oyster- and clam-shells, but no artifacts. At the northeast this pit connected with the following.

Pit 14 B: A large, bowl-shaped pit, 4 ft. in diameter by 4 ft. deep. In the center, about two feet down, in a core of clean sand, was a portion of a dog's skeleton, directed northwest, as though once complete, but the skull and hindquarters alone remained.

Beneath the dog lay some sherds of a small jar of sub-Iroquois type.

Pit 15: A dish-shaped pit, 3 ft. across by 18 in. deep. It contained burnt shells, but no artifacts.

Pit 16: Bowl-shaped, 3 ft. in diameter by 3 ft. deep. Contents: shells and a few sherds.

Pit 17: An oval or washboiler-shaped pit, 4 ft. by 6 ft. in diameter by $2\frac{1}{2}$ ft. deep. This held scallop-shells and a few sherds.

Pit 18: Bowl-shaped, 4 ft. across and 3 ft. deep. Contents: oyster- and scallop-shells, and a few good sherds from at least two sub-Iroquois jars.

Pit 19: Large, bowl-shaped, 6 ft. in diameter by 5 ft. deep. This pit intruded into a rectangular extension at the south that measured 10 ft. long by 4 ft. broad, and may have been the remains of a semisubterranean storehouse of the type used by the Shinnecock of Long Island well within historic times; in fact, the writer observed several in use in 1902. At the northern end, where this extension touched the pit, were the remains of oak posts in the two corners, and traces of another at the southeastern angle. The pit and storehouse contained few shells, but a triangular arrowpoint, a few sherds, a fragment of an Indian pottery pipe-bowl with line decoration (pl. XI, *h*), and a piece of the stem of a Dutch white-clay trade pipe were found.

Pit 20: A bowl-shaped pit, 3 ft. in diameter by 2 ft. deep, which contained only gigantic oyster-shells.

Pit 21: A small pocket, 2 ft. in diameter by 8 in. deep. No objects save shells.

Pit 22: A barrel-shaped pit, 3 ft. in diameter by 3 ft. 6 in. deep. It held only scallop, mussel, and soft clam shells, all dry and well preserved; a net-sinker; a hammerstone; bits of two sub-Iroquois jars. Old fishermen say that the scallop, now regarded as extinct in these parts, occurred in great numbers in some years, and that such pits probably represent feasts when scallops could be gathered in abundance.

Pit 23: This pit was 4 ft. long by 3 ft. 6 in. deep, and was oval, being 3 ft. broad. In disturbed and discolored sand, at a depth of two feet, was found the closely-flexed skeleton of an aged and nearly

toothless male. It lay on the right side, headed southwestward, with the face southeast. The neck was twisted so that the top of the skull was uppermost. No objects accompanied the body. About two inches beneath the skeleton was a layer of light, clean sand, a foot thick, and under this a layer of black earth and sand with some shells, among which was a piece of bone that had been cut in two with a stone knife. The body seemed to have been interred in a refuse pit, the original offal having been raked to one side and fresh sand thrown in, upon which the skeleton rested.

Pit 24: Of washboiler shape, 5 ft. long by 3 ft. broad by 4 ft. deep. A few shells of large oysters and some sherds.

Pit 25: At a depth of one foot from the surface this pit contained the skeleton of a man lying probably flexed on its back, the knees raised and reaching to within four inches of the surface, where the plow had carried them and the bones of the lower legs and feet away. The trunk and head were covered by a heap of bowlders weighing from five to fifty pounds, one of the largest lying on the skull, which, of course, was crushed. The arms had been raised toward the surface and perhaps doubled before the face, but were plowed away. The skeleton was headed southeast, facing east, as the head was turned to one side. Oyster-shells were found in small pockets among the stones. The shape of the grave was indeterminate.

Pit 26: In sand, which did not give a well-defined pit outline, a slightly flexed man's skeleton was found at a depth of ten inches. The body, which had been headed due east, lay on the right side, facing north. In addition to being badly decayed, the bones had been struck by a plow. The arms were extended at the sides, instead of being doubled before the face as usual. A few oyster-shells were scattered through the grave, but no artifacts were placed with the dead. In the grave refuse were a beef-bone, sawed with a white man's metal saw, and the mouth-piece of a Dutch white-clay trade pipe. In the southwestern corner of the grave was a small, bowl-shaped pocket of oyster-shells, 18 in. across by 1 ft. deep.

Pit 27: A washboiler or oval-shaped pit, 4 ft. long by 2 ft. broad by 2 ft. deep. Black earth and a few oyster-shells with a

hollowed, barbed, bone harpoon socket, were the only contents. This pit seemed to be a grave from which a body or its skeleton had been removed in ancient times.

Pit 28: Barrel-shaped pit, 3 ft. in diameter by 3 ft. deep. The contents consisted of shells, two bone awls, one being made of a sliver of hollow bird-bone (pl. x, f), the other of deer-bone, well-made and polished; also a few Algonkian potsherds.

Pit 29: Oval, 7 ft. long by 5 ft. broad by 3 ft. 6 in. deep. It held a few sherds, and the tip of the mouth-piece of an Indian clay pipe. The longer axis of this pit was north and south.

Pit 30: An oval pit, 5 ft. long by 4 ft. broad by 4 ft. deep. It contained a large number of sherds of two vessels, one of true Iroquois, the other of sub-Iroquois type; a net-sinker, and one broken triangular point of flint. The longer axis was north and south.

Pit 31: A bowl-shaped pit, 3 ft. in diameter by 3 ft. deep, which held shells of the hard clam only.

Pit 32: A shallow, dish-shaped pit, 3 ft. in diameter by 8 in. deep. Contents: shells, charcoal, and most of the sherds of a small, sub-Iroquois jar, badly broken by plowing (pl. XII, a).

Pit 33: Bowl-shaped, 3 ft. across by 2 ft. deep, containing principally soft-clam shells. A fine notched bone awl (fig. 4, b), large sherds, and a buck's antler were found.

Pit 34: Dish-shaped, 3 ft. in diameter by 1 ft. deep, with much Iroquois pottery in fragments and a single unrelated sherd.

Pit 35: Dish form, 3 ft. in diameter by 6 in. deep, with large oyster-shells but no artifacts.

Pit 36: A barrel-shaped pit, 3½ ft. in diameter and of the same depth. The contents consisted mostly of ashes and charcoal, with a stone-walled hearth at the bottom. The artifacts found were a bird-bone awl, a few sherds, and a deer antler.

Pit 37: A barrel-shaped pit, 3 ft. 6 in. in diameter by 4 ft. in depth; it held many oyster- and clam-shells, and a large stone hearth halfway down. Contents: some sub-Iroquois sherds, a net-sinker, two bone awls, and a cut bone. Crab- and lobster-claws, and deer- and fowl-bones also abounded.

Pit 38 A, B: *A* was barrel-shaped, 3 ft. in diameter by $4\frac{1}{2}$ ft. deep, packed nearly solid with cockle-shells, among which were a sinker, together with some bones and sherds. *B* was a shallow, dish-shaped pit of later origin, dug into the top of *A* on the east, $3\frac{1}{2}$ ft. in diameter by 1 ft. deep. There were hard-clam shells on the bottom, the rest of the refuse being two species of mussels, mostly of the gray variety. One rim sherd from a pottery vessel was found.

Pit 39: An oval pit, the longer axis east and west, 3 ft. long by $2\frac{1}{2}$ ft. broad and 18 in. deep. A notched, double-ended bone awl (pl. x, *m*), one plain bone awl, a few sherds, and some turtle-bones were found.

Pit 40: Oval, 8 ft. east and west, 5 ft. broad by 5 ft. deep. It held eleven net-sinkers, fragments of two sub-Iroquois jars, a chipped bit of flint, and some sturgeon plates.

Pit 41: An oval pit, 6 ft. east and west, 3 ft. broad, and $4\frac{1}{2}$ ft. deep. Pieces of a large sub-Iroquois jar, a triangular flint reject, a piece of box-tortoise shell cut off in cup making, and calcined shells were among the contents.

Pit 42: A dish-shaped pit, 3 ft. in diameter by 10 in. deep, in which was a circle of hearth-stones filled in with huge oyster-shells. There were no relics.

Pit 43: Of the usual bowl-shape, but shallow, 4 ft. broad, 20 in. deep, and containing only great oyster-shells.

Pit 44: Barrel-shaped, 4 ft. deep by 4 ft. in diameter. Near the surface, large oyster-shells, then discolored sand, and at a depth of three feet the skeleton of a large man, on right side, flexed and headed southeast, facing east (see pl. xiv). Near the knees lay a fine bone batten or knife (fig. 6), with incisions round the edges, and near the feet a good bone awl (pl. x, *o*). Beneath the hands lay a rim sherd of a small, sub-Iroquois jar. About six inches under the body lay a thick bed of calcined mussel- and oyster-shells in which were a few potsherds.

Pit 45: A bowl pit, 2 ft. 6 in. deep and 4 ft. broad, containing the columella of a conch, a net-sinker, fragments of a tortoise-shell cup, and some sub-Iroquois sherds.

Pit 46: Bowl-shaped, 4 ft. 6 in. deep, 4 ft. broad, containing a bone awl and some large sub-Iroquois potsherds.

Pit 47: A barrel-shaped pit, 3 ft. 6 in. broad by 5 ft. deep, which contained only oyster-shells.

Pit 48: A bowl pit, 2 ft. across, 8 in. deep, with mussel-shells alone.

Pit 49: A barrel-shaped pit, 3 ft. in diameter by $3\frac{1}{2}$ ft. deep. It held a few shells and a grooved stone club-head.

Pit 50: A shallow, dish-shaped pit, $2\frac{1}{2}$ ft. across, 6 in. deep, without specimens.

Pit 51: Oval, $4\frac{1}{2}$ ft. long, east and west, $2\frac{1}{2}$ ft. broad, by 3 ft. deep, containing only large hard-clam shells, bits of a turtle-shell cup, and three net-sinkers.

Pit 52: Bowl form, 2 ft. 10 in. in diameter by 2 ft. deep, with mussel- and scallop-shells and a few coarse sherds.

Pit 53: Of indefinite shape. At a depth of two feet, the flexed skeleton of a young male on left side, headed west, facing north-west, in such decayed condition that the hands, right forearm, and vertebræ had disappeared. No objects accompanied the burial. Eighteen inches deeper was a six-inch layer of oyster-shells containing a white quartz leaf-shaped blade of poor quality. Six inches above the left shoulder were a number of coarse, crumbly potsherds (pl. XIII, *b*). Judging by the decayed condition of the bones, this may be one of the oldest graves in the locality.

Pit 54: A very large bowl pit, 6 ft. 6 in. across, and 6 ft. 6 in. deep. It held a few shells; two notched, quartz points; a broken, unfinished celt; a red limonite paint-stone, and a few sherds. A stray human vertebra in the eastern side of the pit suggested a grave from which the bones had been taken long ago, perhaps by relatives, for reinterment.

Pit 55: A small bowl pit, 2 ft. in diameter by $3\frac{1}{2}$ ft. deep. In it was the almost complete skeleton of a good-sized sturgeon, curled around the southeastern side of the pit, about eight inches down, together with a small piece of mica, the edges of which seemed to indicate cutting.

Pit 56: A large barrel-shaped pit, 4 ft. 6 in. in diameter by

3 ft. 4 in. deep. A number of large boulders were unearthed at the bottom, but there were no artifacts. The shells were principally scallops.

Pit 57: This was one of the bowl form, 3 ft. 6 in. in diameter by 2 ft. deep. It was crammed with tightly wedged oyster and hard-clam shells. At one side was found a large sherd from a typical sub-Iroquois jar (fig. 11, *b*), having a perforation at one edge, showing that it had been part of a vessel cracked in Indian times, but mended by boring at both edges of the fracture and lacing the break together with a thong. Some small, plain sherds also were found.

Pit 58: A large bowl pit, 5 ft. across by 3 ft. 6 in. deep. The contents were large oyster-shells, with a layer of mussels near the center. Fragments of deer antler, a long, unworked bar of schist, some sherds from a small sub-Iroquois jar, a cut bird-bone, a triangular arrowpoint of black flint, and another stemmed point of white quartz, were collected.

Pit 59: A small pit of the barrel form, 2 ft. 4 in. wide by 2 ft. 6 in. deep. It held a few shells, and some broken and crumbling sherds from the rim of a handsomely decorated jar of Algonkian type, which, in addition to incised chevron patterns, showed a raised ornament in the form of a knob or conventional handle near the rim. Beneath the chevrons were rows of short lines impressed in the clay with a cord-wrapped stick before firing. Unfortunately these sherds were so poorly fired that they fell to powder at a touch.

Pit 60: A good-sized bowl-shaped pit, 5 ft. in diameter and 4 ft. deep. A few shells, some indeterminate sherds, a broken flint triangle, half of a pitted hammerstone, and the long, narrow plastron of a musk (?) tortoise formed the complement of specimens.

Pit 61: A bowl pit, 3 ft. broad by 2 ft. deep, with the usual oyster-, scallop-, and clam-shells. In the way of artifacts were found a cut and perforated phalangeal bone of a deer (fig. 5, *b*), a bored fragment of tortoise-shell, two cut bones, a broken bone awl, a complete carapace of the box-tortoise partially made into a cup, and some sub-Iroquois sherds.

Pit 62: A small, sunken fireplace, 2 ft. across and 1 ft. deep, containing a few shells among burned stones and charcoal, and, by

way of specimens, some indeterminate potsherds and a piece of worked turtle-shell.

Pit 63: A small, oval pit, long axis north and south, 3 ft. 6 in. long by 2 ft. broad and 3 ft. deep. The usual shells, and, among these, part of a tortoise-shell cup with scalloped or nicked edges (fig. 7), and some bits of a tiny toy jar of the sub-Iroquois type, no more than three inches tall.

Pit 64: Small, bowl-shaped, 2 ft. across by 10 in. deep. Contents, besides burnt stones, only one net-sinker and a small sherd.

Pit 65: A large, bowl-shaped pit, 4 ft. in diameter by 4 ft. deep, containing a few sub-Iroquois sherds, and a bit of cut antler prong partially hollowed, perhaps for the reception of a bone awl. A fox or a woodchuck had dug a long burrow for ten or twelve feet to the east from the bottom of this pit, and in it were a few shells and bones that had been dragged into the den. Perhaps this pit was a semisubterranean storehouse of the Indians, which the animal had invaded.

Pit 66: Rather distant from the rest was this bowl-shaped pit, 5 ft. across by 2 ft. 6 in. deep. It held only a notched or badly grooved stone club-head, and may have been an old corn cache.

SUMMARY OF THE PIT FINDS

(The pits devoid of artifacts or of skeletal remains are omitted)

No.	Objects of Bone	Objects of Stone	Objects of Clay	Skeletons
1	.....	.....	Straight piece of clay pipe stem; indeterminate sherds	
2	Arrowpoint	Triangular arrowpoint	Sub-Iroquois sherds	
3	.....	Polished celt	Sub-Iroquois sherds	
4	Fish-hook, awls	.....	Sub-Iroquois sherds	
5	Antler arrow; awl	Two net-sinkers; triangle point	Sub-Iroquois sherds; stem of Dutch pipe	Two human fingerbones
6	Five awls	Notched maul; hammerstone	Sub-Iroquois sherds	

SUMMARY OF THE PIT FINDS—(Continued)

No.	Objects of Bone	Objects of Stone	Objects of Clay	Skeletons
7	Two cut bones; notched awl	.....	Part of pipe; Algonkian, sub-Iroquois, and plain sherds	
8	.....	Hammerstone		
9	Long awl	Triangular point; hammerstones		
10				
11	Awls	Nine net-sinkers	Sub-Iroquois sherds	
13	.....	Notched point	.....	Two flexed males, N.E.
14B	.....	.....	Sub-Iroquois sherds	Dog's skeleton
16	.....	.....	Plain sherds	
17	.....	.....	" "	
18	.....	.....	Sherds from at least two sub- Iroquois jars	
19	.....	Triangular point	Part of Indian clay pipe and Dutch clay pipe	
22	.....	Net-sinker; hammerstone	Sherds of two sub-Iroquois jars	
23	Piece of cut bone	.....	.....	Old male, flexed, headed S.W.
25	.....	.....	.....	Male, flexed on back, headed S.E.
26	Sawed beef-bone	.....	Piece of a Dutch clay pipe	Male, flexed E.
27	Bone harpoon barb	.....	.....	
28	Two bone awls	.....	Algonkian sherds	
29	.....	.....	Indian pipe- stem; plain sherds	
30	.....	Flint triangle; net-sinker	Sub-Iroquois sherds	
31	.....	.....	.....	
32	.....	.....	Broken sub-Iro- quois jar	
33	Notched awl	.....	Plain sherds	
34	.....	.....	Sub-Iroquois sherds	
36	Awl	.....	Plain sherds	
37	Two awls; a cut bone	.....	Sub-Iroquois sherds	

SUMMARY OF THE PIT FINDS—(Continued)

No.	Objects of Bone	Objects of Stone	Objects of Clay	Skeletons
38	.....	.....	Sherds	
39	Two awls	.....	"	
40	.....	Eleven net-sinkers; a reject	Sherds of two sub-Iroquois jars	
41	Cut turtle-shell	Flint triangle	Sherds of sub-Iroquois jar	
44	Bone batten or knife; bone awl	.....	Sub-Iroquois sherds	Adult male, flexed, headed S.E.
45	Bits of turtle cup	Net-sinker	Sub-Iroquois sherds	
46	Bone awl	.....	Sub-Iroquois sherds	
49	.....	Grooved club		
51	Bits of turtle cup	Three net-sinkers		
53	.....	.....	Algonkian sherds	Flexed male, headed W. One human vertebra
54	.....	Two notched points; paint stone; incomplete celt	Plain sherds	
55	.....	Piece of mica	.....	Skeleton of sturgeon
57	.....	.....	Sub-Iroquois sherds	
58	Cut bone	Flint triangle; notched point	Sub-Iroquois sherds	
59	.....	.....	Algonkian sherds	
60	.....	Broken flint triangle; broken hammerstone		
61	Two cut bones; worked deer phalanx; bored turtle-shell; broken bone awl; turtle cup	.....	Sub-Iroquois sherds	
62	Worked turtle-shell	.....	Sherds	
63	Decorated turtle-shell cup	.....	Sub-Iroquois sherds	
64	.....	Net-sinker	Sherd	
65	Cut antler	.....	Sub-Iroquois sherds	
66	.....	Notched club		

Of all the sixty-six pits, fifteen contained no artifacts; twenty-five had articles of bone or antler; twenty-two, objects of stone,

BONE IMPLEMENTS FROM CLASONS POINT

of which six were triangular arrowpoints and four notched points; thirty-nine, parts of pottery vessels; four, portions of pipes of native manufacture; and three, Dutch trade-pipe fragments. Six were grave pits containing five single burials and one double burial; one held a dog, and another a sturgeon's skeleton.

ARTICLES OF BONE

The natives of Snakapins village possessed greater skill in boneworking than the occupants of the older part of the Schley Avenue site, as is clearly indicated by both the variety and the quality of the specimens found. Certain archaic forms, such as the notched awls, first known to archeologists from the Schley Avenue shellheap, still persisted, as did the crude sliver awls, but well-worked and polished examples were not uncommon.

At Snakapins, twenty-seven awls, whole and broken, were obtained, a relatively large number when considered in the light of the area excavated. Of these, only eight are of the typical, local, sliver type (pl. x, *e, f*), so abundant at Schley avenue in the older deposits. If one may judge from the specimens figured by Beauchamp¹ and by Boyle,² and those found by Houghton,³ this crude form is rare or wanting in the Iroquois region, from the Mohawk country westward to the Neuter Nation, and onward through the territories of the Huron and Tobacco nations. This belief is also borne out by the collections from these regions in the Museum of the American Indian, Heye Foundation, and by the writer's field work. It is then safe to maintain that this stubby, slovenly-made awl, consisting only of a rudely pointed, bone sliver, is characteristic of the wretched early bonework of the tidewater Algonkian tribes of New York, adjacent New Jersey, and Connecticut.

Pl. x, *c*, exhibits a variant of the form slightly notched at the base. It is possible that, in Snakapins at least, some of these stubby awls had antler handles.

The Iroquois type of bone awl, which is well finished and

¹ Beauchamp, Wm. M., *Horn and Bone Implements of the New York Indians*, *Bull.* 50, *New York State Museum*, Albany, 1902.

² Boyle, David, *Annual Archaeological Reports*, Provincial Museum, Toronto.

³ Houghton, F. W., *Archæology of the Niagara Frontier*.

polished, showing work over its entire surface, is represented by three complete and five broken specimens (pl. x, *g-k*). Of these, fig. *i* is interesting in that a longitudinal groove on the left shows how the bone was dressed to shape by cutting, or rather sawing, with a stone knife, as well as by rubbing on a grit-stone, apparent at the butt. The specimen still retains a high polish, and the point has been charred black, possibly to harden it.

Fig. *k* represents a large awl of the same type, upon the partially broken butt of which may be seen four faint notches or tallies, and fig. *j* shows an unusually long, thin, delicate specimen, made with a rounded butt.

All of the foregoing examples seem to have been from the bones of deer or other large mammals, whereas splinters of the hollow bones of birds often afforded material for the sliver awls.

Fig. *o*, representing a curved awl made from a rib, exhibits no great skill in workmanship. It was found deposited with a human skeleton in Pit 44, the grave which contained the bone batten (fig. 6).

A single example, and that minus its point, of an awl worked from the bone of a small mammal and retaining the joint as a natural grip or handle, was found, though awls of this class were not rare at the Schley Avenue site.

Four awls of the notched type, first reported from Throgs neck, were obtained (pl. x, *l-n*, and fig. 4, *b*); of these fig. 4, *b*, which still retains its high polish, is roughly quadrangular in cross-section, and shows thirty-three tally-marks on its four corners, in groups of 11, 6, 9, and 7, respectively. Mr Amos Oneroad, the writer's Sisseton Dakota assistant, suggests that the indus-

trious owner thus recorded the number of leathern suits or pairs of moccasins sewn with this tool, the Dakota women marking the antler handles of their hoe-like hide-scrapers in this manner to record

FIG. 4.—*a*, Antler arrow-point. *b*, Notched bone awl showing tally marks.

the number of robes tanned. The suggestion is so consistent with Indian custom that I venture to offer it as at least approximating the truth.

Fig. *m* is alone in being double-pointed, the two tips being found and fitted, but both were lost owing to an unfortunate accident. It must have been an awkward tool to use, if indeed it was an awl.

OBJECTS OF CUT BONE

Next in number to the bone awls, articles of bone showing cutting or working with stone tools were in evidence. Of a total of ten specimens, four seem to be complete implements, having had a definite purpose which is not easily determined. These four consist of the knuckle ends of the long-bones of the Virginia deer, sawed off, and two longitudinal holes, or sockets, cut side by side in the spongy interior (fig. 5, *a*). This type of bone object is neither new nor undescribed from sites of this period, as the writer figured a similar specimen, found at Van Cortlandt Park

FIG. 5.—*a*, Object of cut deer-bone artificially hollowed. *b*, Metacarpal of a deer, cut and perforated for use as a jingler or for the cup-and-pin game.

about thirty years ago, in his article on the "Archæology of Manhattan Island."¹

¹ *Anthropological Papers of the American Museum of Natural History*, vol. III, p. 113, fig. 11.

The other six specimens of cut bone show merely the process of this phase of aboriginal workmanship. One, a bird-bone, is sawed across longitudinally. The scapula of a deer is deeply scored in four places where the Indian workman attempted to cut out a rectangular portion by sawing in from both sides. A section of heavy bone or antler, too badly burned for identification, has been partially worked down toward a point by vigorous scraping with a stone tool.

MISCELLANEOUS BONE OBJECTS

Pl. x, *d*, depicts one of the rarest articles found at Snakapins, a bone fish-hook. The barb is clumsy and heavy, as compared with specimens from the Iroquois country, where the idea doubtless originated. The straight end is somewhat enlarged, probably to facilitate attachment to the line.

Only one other perfect specimen of bone fish-hook is on record from tidewater New York. This was obtained in a shellheap at Sag Harbor, Long Island, by the late W. W. Tooker, and is figured by Abbott,¹ and also by Beauchamp and Rau.² It appears to be much larger and better made than the Snakapins specimen. Of this Sag Harbor hook, Beauchamp says: "The basal curves, however, come to a point, greatly increasing the strength of the implement there. In this respect it is unique." The Snakapins specimen shows the same peculiarity. In the Museum of the American Indian, Heye Foundation, is a fragment of a bone fish-hook shaft found by Mr Foster H. Saville in a shellheap at Soak Hides, Three Mile harbor, Easthampton, Long Island. There are none on record from New Jersey or Connecticut.

Fig. 5, *b*, shows a metacarpal bone of the Virginia deer, the larger end of which is cut away, the interior hollowed out, and the smaller end perforated by sawing a short slot with an edged stone tool. It was probably used either as a jingler attached to a hand rattle, or to a garment with a string passed through the perforation and knotted on the inside, or as a cup in the "cup-and-pin" game. Like

¹ Primitive Industry, p. 208, fig. 193.

² Beauchamp, Horn and Bone Implements, etc., fig. 209, p. 307. Rau, Prehistoric Fishing in Europe and North America, Washington, 1884, fig. 189.

specimens are not uncommon on Iroquois sites in central New York, where the writer, among others, has collected them; but they are new to the tidewater region. Abbott figures a somewhat similar example found in an Indian grave in Lagrange street, Salem, Mass.¹

There is a large bone tube or bead, said to have come from Pelham Bay Park, in the collection of the American Museum of Natural History, but its general appearance suggests an origin on one of the Neutral sites near the Niagara frontier. Pl. x, *a*, however, shows a small bone bead, bearing many ornamental cuts or scores in which a dark pigment or gum seems to have been daubed. Besides the large Pelham tube of doubtful use and origin, this is the only bone bead known from coastal New York. The absence of these ornaments from tidewater Algonkian sites is the more remarkable since they are exceptionally abundant from one end of the Iroquois country to the other. The writer has himself found numbers on Seneca, Cayuga, and Neutral sites, and as many as thirty at least were taken by him from a single pit on the famous Erie site at Ripley, Chautauqua county, New York, afterward thoroughly explored by Parker.²

The presence of this bead at Snakapins is only another evidence of Iroquois influence. No writer on Iroquois archeology from the Mohawk valley to Georgian bay has failed to comment on the abundance of these articles.

Pl. x, *b*, shows a flat, triangular, bone arrowpoint, hollowed to receive the shaft. Such points are common on sites of this period, and have been repeatedly described by the author. The best and most numerous examples known were obtained by Mr George H. Pepper in a triple grave at Tottenville, Staten Island.³ The common form among the Iroquois seems to have been different, being more usually flat and imperforate, or, if perforated, to have been conical in shape. An excellent article on bone and antler arrowpoints,

¹ Abbott, C. C., *Primitive Industry*, p. 399, fig. 376.

² Parker, A. C., *An Erie Indian Village and Burial Site*, *Bulletin 117 of the New York State Museum*.

³ Skinner, *The Lenape Indians of Staten Island*; also *Archæology of the New York Coastal Algonkin*, *Anthropological Papers, American Museum of Natural History*, vol. III, pp. 15, 44, and 229 respectively. Also, *Indians of Greater New York*, p. 126.

by Mr C. C. Willoughby, should be used for reference by those interested in the subject.¹

The other specimen, which lacks the point, is more deeply barbed, and may possibly be in reality part of one of those locally rare articles, a bone harpoon, though it is not of the usual form, being hollowed.

FIG. 6. —
Bone batten
or dagger.

Bone Batten or Dagger.—This unique specimen, the butt of which is missing, was found in Pit 44, near the knees of the skeleton (fig. 6). It may be a batten, probably for weaving Indian hemp garments.² The edges show a multiplicity of fine notches, such as appear on similar bone objects found at Hawikuh, New Mexico, and elsewhere. The notches, however, seem almost too clean-cut, and do not have the worn appearance that might be expected if the tool had been frequently used. While blunt at the point and dull on the edges, it resembles to some extent a bone dagger from Brewerton, central New York, figured by Beauchamp,³ but the latter specimen lacks the side notches.

The fact that a bone awl, generally considered a sewing tool, was the only other object found in this grave, may also bear on the assumption that our specimen was a batten.

ARTICLES OF TORTOISE-SHELL

Remnants of six shells of the common box-tortoise that show Indian workmanship, and one complete shell partially prepared for use as a cup or a bowl, were found. Possibly other fragments were unearthed but not recognized, since often the amount of artificial modification necessary to manufacture a cup was negligible.

While shells of the wood tortoise, as well as of the spotted,

¹ Antler-pointed Arrows of the Southeastern Indians, *American Anthropologist*, n.s., vol. III, p. 431.

² Harrington, A Preliminary Sketch of Lenape Culture, *American Anthropologist*, n.s., vol. XV, p. 220.

³ Beauchamp, Horn and Bone Implements of the New York Indians, p. 267, fig. 60, pl. 6.

painted, musk, snapping, and diamond-back tortoises were found repeatedly in the pits, only the shell of the box-tortoise was favored as material by the native workers, and this is easily explained by the fact that the carapace of this species, especially of the females, is very round and high, and naturally cup-like.

Usually the Siwanoy craftsman at Snakapins prepared his cup by scraping away the spinal processes and other bony attachments inside the carapace, and then by trimming the flaring edges of the shell. Curiously enough, the bright-colored scales on the exterior were not generally retained for ornamentation, as the exterior surface of the shell often shows considerable wear from the stone scraper of the worker. Fragments of the trimmed edges of these shell cups are among our

FIG. 7.—Fragment of an ornate tortoise-shell cup.

specimens. Possibly such thinly-scraped cups lost considerable strength in the process, which may account for their fragmentary condition. Oddly enough, while undressed tortoise-shells usually are found parted along the sutures, worked shells are more usually broken across them.

Plain turtle-shell cups of the type described are no novelty at tidewater Algonkian sites. They have been found abundantly by the writer on the Bowmans Brook site at Mariner's Harbor, Staten Island, and by Pepper and others at Tottenville. The writer has also found them at Shinnecock hills, Long Island, and in the shell-heap at Inwood, Manhattan borough.¹ These cups do not seem to be found in the Iroquois country, possibly because the box-tortoise does not commonly occur so far north.

Fig. 7 represents a portion of an unusually ornate specimen, much cut down and well scraped, the edges ornamented with blunt serrations or scallops. Another fragment, from a different shell, shows the same peculiarity, but to a lesser degree. Only one other

¹ Skinner, *Anthropological Papers of the American Museum of Natural History*, vol. III, pp. 23, 230. Harrington, *ibid.*, p. 173.

specimen thus ornamented is known to the writer, a fragment which he found in a shell-pit on the Bowmans Brook site, on the property of the Downey Ship Building Corporation, at Mariner's Harbor, Staten Island. This specimen, also in our collection, is not only nicked about the edges, but deeply cut in a step-like series of scallops.

A piece of tortoise-shell through which a tiny hole has been bored was also found at Snakapins, but its character cannot be determined from so small a piece. It may have been either a portion of a broken cup mended by boring and lacing, or a bit of a tortoise-shell rattle, an example of which was found by Mr Harrington at Pelham Bay Park, not many miles from Clasons point.¹

OBJECTS OF ANTLER

Contrary to our experience at Throgs neck, where the Schley Avenue site yielded objects of elk as well as Virginia deer antler, no artifacts made of the former substance were secured at Snakapins. Indeed, objects of antler were not abundant there, although whole or broken antlers were found in numbers in the pits. Only four implements of this material were gathered. These were:

Fig. 4, *a*, shows a partly hollowed, conical arrowpoint made of the tip of a prong, dressed down to a sharp, slender point. The specimens from the older parts of the Schley Avenue shellheap are without exception thicker, clumsier, and with only a suggestion of hollowing. This is also true of several such points found by the writer at the bottom of the shellheap at Inwood. From the fact that the Snakapins specimen and those found at Burial ridge, Staten Island, are a decided improvement on the older specimens, in matter of appearance and general effectiveness, it may be surmised that Iroquois suggestion or example was brought to bear on this subject, as well as on so many others touched on in this paper. The older specimens could not have been attached firmly to their shafts without a copious use of glue or gum, but the Snakapins and Staten Island examples were well fitted to cap a shaft.

Antler arrowpoints were commonly used by the Iroquois, and have been found among a number of the Central Algonkian tribes

¹ Harrington, *Ancient Shell Heaps near New York City*, *Anthropological Papers of the American Museum of Natural History*, vol. III, p. 173.

up to very recent years. They are fully treated in the references given in the accompanying account of bone arrowheads.

A fragment of a cylinder made from a deer's horn was found. This is no doubt a piece of one of the common tools used by all the Eastern tribes for flaking arrowheads from suitable stone by pressure. They have been found by the writer in Erie graves at Ripley, Chautauqua county, New York, accompanying flint raw material and finished points, as though deposited in a bag with the other petty paraphernalia of the owner. Houghton¹ has similarly obtained them from Seneca graves, and the writer found one with several hundred chips of flint, jasper, and quartz, and a perfect arrowhead, in a small deposit beneath the Inwood shellheap. They have likewise been recorded from all tidewater sites of the late prehistoric to the historic period.

In this connection the observations of Captain John Smith on the Virginia Algonkians are worthy of note. He says:

"His arrow head he quickly maketh with a little bone, which he ever weareth at his bracer, of any splint of stone, or glasse in the forme of a heart, and these they glew to the end of their arrowes. With the sinewes of Deere, the tops of Deeres hornes boyled to a jelly, they make a glew that will not dissolve in cold water."²

Many antler prongs, broken off, perhaps to boil for making glue, were unearthed, but only two show working. In both cases the extreme points of these had been sawed off with a stone knife and the ends slightly hollowed as though to receive some object. Perhaps these were intended as handles for bone sliver awls.

The scarcity and poorness of antler tools at Snakapins may be accounted for by the fact that in shell-pits antler usually disintegrates more rapidly than in a deep shellheap, such as that at Schley avenue. This, however, is also true of bone, and bone objects were abundant and well preserved.

¹ Houghton, F. W., *The Seneca Nation from 1635 to 1687, and, The Characteristics of Iroquoian Village Sites of Western New York*, *American Anthropologist*, n.s., vol. XVIII, p. 512.

² *Travels and Works of Captain John Smith, Part I*, p. 364, Edinburgh, 1910. For a fuller account of the making of flint arrowheads by pressure with "a little bone," the reader is referred to *Flint Working by Ishi*, by Nels C. Nelson, *Holmes Anniversary Volume*, Washington, 1916, p. 397.

STONework

At Snakapins, specimens of stone, if we except net-sinkers, were extremely rare. One small polished celt (pl. XI, g) and one broken and unfinished example were collected. No grooved axes appeared.

In all, nineteen chipped stone objects were gathered, including surface finds. Of these, eleven are triangular arrowpoints, six are stemmed or notched, and two are inclined to a lanceolate or leaf-shape form. One of the notched variety was found in a grave at the knees of a skeleton.

Little need be said concerning the chipped stone work at Snakapins, a selection of specimens being shown in pl. XI, a-f and i-l. It is one of the peculiarities of the culture of the Iroquois that they were poor stoneworkers as a rule, even though they could and did make beautiful pipes of stone. They used almost exclusively small triangular arrowheads of flint, and were not makers of grooved axes. Slate banner-stones, two-holed gorgets, and the like, were not a part of their material culture. They did not possess the long stone pestle.¹

When, therefore, the tidewater Algonkians were thoroughly under the influence of the eastern Iroquois tribes and the culture complex of the latter became firmly implanted, a decadence in local stone art entered side by side with the rejuvenation of bone and clay as working materials.

In the lower levels at Schley avenue, banner-stones, notched, grooved, and perforated gorgets with two or more holes, grooved axes, long stone pestles, and a variety of forms of flint-work were obtained. At Inwood the grooved axe, the two-holed type of gorget, and numerous forms of chipped stone abounded at some depth from the surface. The later pits at Schley avenue and the surface layer of the great heap yielded fine bone and pottery, but poor stonework. Deeper, among very many stone points, only two were triangular, while eleven were found nearer the surface.

At the Bowmans Brook site at Mariner's Harbor, Staten Island,

¹ See Houghton, F. W., The Characteristics of Iroquoian Village Sites of Western New York, *American Anthropologist*, n.s., vol. XVIII, p. 508. Beauchamp, Horn and Bone Implements, especially p. 252. Parker, A. C., The Origin of the Iroquois as Suggested by their Archeology, *American Anthropologist*, n.s., vol. XVIII, p. 479.

STONE IMPLEMENTS, AND PORTION OF AN EARTHENWARE PIPE BOWL (i) FROM CLASONS POINT

which was probably contemporary with Snakapins, grooved axes still held their own at the time the place was abandoned, but all other stone artifacts, except sinkers and hammers, were on the wane. The Iroquois taught the tidewater Algonkians nothing about stonework: they merely caused the local people to favor certain types they had always known, to the exclusion of others.

At Snakapins net-sinkers were usually carelessly made from small, flat, decayed masses of local micaceous schist, notched on the two nearest sides, and roughly rectangular. They are the poorest implements of the kind yet collected locally, but were abundant, forty-two being found in all, as many as eleven in Pit 40, and nine in Pit 11. They were not nearly so abundant at Schley avenue. A few were hastily made from field pebbles. There seems no reason to doubt the use of these objects as net-sinkers. The writer, fifteen years ago or more, saw bricks, similarly notched on the sides, used for the same purpose by the remnant of the Shinnecock Indians then resident at or near Southampton, Long Island; but Mr William C. Orchard suggests that some of these stones may have been used as weights for weaving. The form is everywhere common in the Eastern states.

A grooved club, the groove running round the longer axis of the oval pebble of which it was made, was obtained. It is of a form common throughout tidewater New York, and the writer has seen and collected examples on the shores of Cayuga lake and Seneca river on old Algonkian sites of pre-Iroquois origin. It is axiomatic among archeological students that no grooved object can be Iroquois in origin or inception.

Hammerstones, both with and without pits on the flat sides, were found to the number of six, of which five are pitted. The form is too common to need comment. Some may have been used as mullers for grinding corn on a very shallow stone mortar. None of the latter were obtained, probably for the reason that any which were abandoned by the Siwanoy at Snakapins lay on the surface, and therefore would have been taken away with other small boulders by early settlers for wall or fence building.

A small piece of mica, of nondescript shape, with edges that may

have been cut, was found in one of the pits, but it merits little attention.

Fragments of soapstone vessels were not found, nor are they to be expected on a site of so late a date.

An irregularly shaped, flat bit of red limonite, from one of the pits, was smoothed and scored all over one surface where the natives had scraped it to obtain pigment, most probably for facial and body painting. Such paint-stones occur without fail on nearly all local sites.

A beach pebble with the edges abraded by use in rubbing was also collected.

OBJECTS OF EARTHENWARE

PIPES

Fragments of four clay pipes of native manufacture, and the stems of three trade pipes presumably imported from Holland, were gathered at Snakapins. Of the former, one fragment is merely a small fraction of the mouthpiece; another is a portion of the stem and bowl of a plain, black, clay pipe, the mouthpiece and most of the bowl of which are missing. The bowl, which was squat and stubby, left the stem at an angle of thirty-five degrees. The most interesting feature of this badly-broken specimen is that the bowl was apparently modeled solid and then the soft clay dug out of the interior with a sharp stick or reed, the rough gouge-marks never being smoothed away. The stem seems to have been molded about a reed or a heavy stalk of coarse grass that burnt away when the pipe was fired.

In one of the first pits opened, most of a plain pipe of brown clay, with the bowl and the stem at only a slight angle, was found. A large part of the bowl was missing, however. This pipe is of better workmanship than that last described, and even has a well-smoothed exterior suggesting the polish found on Iroquois specimens. The form is typical of the local Algonkian tribes. The writer found a more complete, though more badly broken and smaller specimen, in a shell-pit at the Bowmans Brook site, Mariner's Harbor, Staten Island, and a perfect example, of steatite,

to be described in a later paper, in the Manhattan Island shellheap at Inwood; both of these specimens, however, had the bowl and the stem in the same plane. All of these, save the Staten Island specimen, are in the collections of the Museum of the American Indian, Heye Foundation. The writer has seen several examples of tubular pipes in private collections in southern New Jersey, and Beauchamp figures a pottery example¹ from Union Springs, New York. The finder, Mr W. W. Adams of that place, showed the site whence it came to the writer, who did some excavating there in August, 1916. As might be expected, it is Algonkian and pre-Iroquois. This form is not Iroquois. Of the two types, the variety in which the bowl is set at a slight angle is the more common.

A fragment of a pipe-bowl, well made and of good quality, exhibits a parallel, horizontal-line decoration (pl. XI, *h*) similar to one of the most common pan-Iroquois pipe forms.

Pipes, being semi-ceremonial in their function, were less apt to be influenced by Iroquois notions, and even though occasional alien forms occur, on the whole the tidewater Algonkians were very conservative about adopting them, despite the unquestioned superiority of Iroquois smoking utensils. Fig. *h* presents a rather unusual exception.

POTTERY RECEPTACLES

Pottery vessels were common utensils in the wigwams at Snakapins, thirty-nine of the sixty-six pits containing sherds, representing fifty-five or more receptacles. Nevertheless, the Siwanoy were thrifty enough to mend cracked or broken vessels by boring holes in the opposing edges of a crack and lacing the fractured parts together, as is shown in a number of instances.

All the Leland Avenue jars seem to have been made of local clay tempered with coarse beach sand, burnt and pounded micaceous schist, or granulated shell, and all seem to have been fashioned by the usual coiling process. Nearly all are well-baked, although a few show disintegration through faulty firing. In color the jars range from grayish yellow, in some cases almost a light salmon pink,

¹ Beauchamp, Earthenware of the New York Aborigines, *Bulletin* 22, *New York State Museum*, p. 123, no. 179.

to jet black, with most of the examples showing a grayish hue. None seem to have been of very large size, although several had each a capacity of a couple of gallons. One diminutive toy vessel is represented by several fragments. Many still show soot encrusted on the inner surface.

Of the fifty-five clearly definable as separate vessels, twelve were Algonkian in type, thirty-seven of modified or sub-Iroquois form, three distinctly Iroquois, and three indeterminate.

ALGONKIAN POTTERY

As nearly as can be ascertained from the fragments, all of the purely Algonkian jars are of the well-known pointed-bottom type. In point of decoration none of this series shows anything new or elaborate, and on the whole all are inferior to those found on the Bowmans Brook site at Mariner's Harbor, Staten Island, but about equal to those from Port Washington, Long Island. All are better than the best from the Schley Avenue shellheap.

Two of these vessels are entirely plain, and one nearly so; six exhibit decoration made by impressing a cord-wrapped stick on the outer surface of the jar while the clay is moist, one with a short, wooden stamp with notched edges, one with a fork or a comb-like instrument having three or four prongs, another with impressions of the triangular end of a stick or a reed, and one with a frieze of parallel, perpendicular lines scratched with a bone or wood sliver. One only of the vessels exhibits the bold, free-hand chevron designs so characteristic of the same class of ware from Manhattan and Staten islands. In all the decorated zone was confined to the rim and a strip below it, usually but not always narrow, and none were decorated on the inside of the lip, as often occurs in this region. In four cases the rim flares outward. In one example the rim is drawn inward so that it is narrower than the body of the vessel.

Fig. 8, *b*, illustrates a rim sherd from a rather plain vessel of this series. The neck bends inward a little, while the upper edge flares outward. The design consists of a neck-band of parallel, perpendicular lines, scratched with a sharp implement, and confined by two horizontal lines an inch and a half apart.

a *b* *c* *d* *e*

FIG. 8.—Sherds of rims of Algonkian vessels.

Fig. 8, *c*, represents a sherd with three continuous horizontal bands round the rim, made by pressing a cord-wrapped stick. Beneath these are a series of perpendicular rows of short bars, made by stamping with the end of the stick.

Fig. 8, *d*, shows another specimen decorated with a cord-wrapped stick in a series of horizontal rows, with oblique lines inclining to the left at the top. On the upper edge of the rim these angle off at forty-five degrees with bars inclining to the right.

Fig. 8, *a*, exhibits a sherd of the rim of a fine jar, ornamented by pressure with the end of a stick or a stalk of coarse grass, triangular in cross-section. Four rows in two groups encircle the neck of the jar, the lip bends over, and the outer and inner angles are scored with the round side of the stick.

Fig. 8, *e*, shows a piece of the most ornate of all the purely Algonkian jars from Snakapins. The grouping of the lines in vertical, horizontal, and slanting rows suggests the designs on Iroquois vessels. The work seems to have been done with a small tool made of bone, antler, or wood, notched on one edge, perhaps used as a roulette.

One sherd of unusual interest was in such bad condition, owing to poor firing, that it could not be saved. It showed, as it lay in the ground, an unusually deep zone of decoration. The portion nearest the lip was marked in a rude chevron pattern, with a small, raised, oblong knob surrounded by several lines of decoration impressed with a closely-nicked roulette. Below the chevrons were eight or ten broken, horizontal rows of short, dotted lines rouletted in the clay, from which descended double, perpendicular rows of dots at intervals of somewhat more than an inch. Here, of course, the knob was the rare feature, though such have been recorded before.

SUB-IROQUOIS POTTERY

As might be expected from a site of this period, sub-Iroquois pottery was by far the predominant style at Snakapins. The form is a blending of the Algonkian and the Iroquois, the rounded bottom having made its appearance with the constricted neck and a suggestion of the angular and high collar that characterizes

FIG. 9.—Sherds of rims of vessels of sub-Iroquois type.

eastern Iroquois vessels, and which later became popular in tide-water New York.

FIG. 10.—Sherds of rims of vessels of sub-Iroquois type.

Pl. XII, *a*, represents a vessel of this class of which enough fragments were recovered to make restoration possible. The dark-gray body is rather more globular than is usual in pottery from Algonkian sites. It measures 11 in. in height by $9\frac{1}{2}$ in. in maximum diameter, and $6\frac{1}{2}$ in. across the mouth. Its capacity is approximately five quarts. The decoration, which is meager, consists of a series of short, vertical lines incised rudely in rows of varying number about the narrow rim. The usual four sharp peaks and angles of Iroquois ware are suggested by three slight rises on the upper edge of the rim; a fourth is needed to balance the effect, but

SUB-IROQUOIS EARTHENWARE FROM CLASONS POINT

(The two sherds shown at the right are portions of the rim and base of one vessel)

a

b

c

d

e

f

g

h

FIG. 11.—Sherds of rims of sub-Iroquois vessels.

evidently the potter forgot to add it. It is a homely vessel, but quite interesting.

Two other jars of this type are shown in pl. VII, *a*, *b*, of the report on the Schley Avenue site.

That the conservative Siwanoy potters hesitated to abandon the pointed bases which characterize their earthenware vessels is shown in pl. XII, *b*, *c*. Here a vessel of sub-Iroquois type, as indicated by the constricted rim with the usual elevations, was furnished with the time-honored sharp bottom, a combination not hitherto recorded. The design is made with the familiar cord-wrapped stick.

Figs. 9, *a-h*, and 10, *a-c*, show a series of sub-Iroquois rim sherds decorated in stamped designs made with the cord-wrapped stick. In passing, it may be said that true Iroquois pottery from central New York rarely or never is ornamented in this manner.

Next most abundant are portions of vessels of this group which are ornamented by impressing with the edge of a scallop-shell. This was a simple but effective means of decoration, as shown by figs. 11, *a-f*, and 12, which illustrate a series of sherds treated in this

manner. Like the foregoing, this form is wide-spread near the coast in south-eastern New York.

FIG. 12.—Sherd of a sub-Iroquois vessel decorated with the back edge of a scallop-shell.

Pl. XIII, *a*, represents a large sherd, the rim showing parallel bars of decoration apparently made with the rounded end of a narrow stick or bone. The example shown in fig. 11, *h*, is somewhat similarly treated, except that the instrument with which the dots were gouged out was triangular in cross-section.

Fig. 10, *d*, is a large rim sherd from a jar that had been ornamented in a striking and unusual way. Besides groups of chevrons and broken columns made with the cord-wrapped stick, two rather ornate projections, like conventional lugs or handles, nearly two inches long,

SHERDS OF SUB-IROQUOIS VESSELS FROM CLASONS POINT

extend up to the rim, suggesting uncommon originality on the part of the potter.

Pl. XIII, *b*, illustrates a portion of a jar found in a grave, near the shoulder of the skeleton in Pit 53. These sherds are elsewhere recorded by the writer as Algonkian, but on closer examination the form seems sub-Iroquois. Only portions of the incised design remain, most having been chipped off by frost. The body of this vessel is strongly fabric-marked, more so than is usual hereabouts. Moreover, from the unbroken lines it would seem that this appearance was not caused by the application of a wrapped paddle, as is generally the case, but was actually wrapped in a coarse, woven stuff resembling "gunny sacking."

Fig. 11, *g*, shows a sherd from a vessel of a type more common on eastern Long Island—a large, rather boldly decorated jar, with designs applied with a stick in a bold checker pattern.

Two vessels of this group were wholly plain except for fabric marks, in these cases certainly applied with a paddle.

IROQUOIS POTTERY

The distinctive character of eastern Iroquois pottery, the Mohawk-Onondaga group, though often commented on, was first

FIG. 13.—Sherds of typical Iroquois vessels.

noted by Mr Percy M. Van Epps.¹ Copies of this style became popular among the tidewater Algonkians at a period later than that during which Snakapins village flourished, although it had

¹ Aboriginal Remains in Lower Mohawk Valley, *Popular Science News*, Sept., 1902, p. 200.

already made its appearance, as indicated by the sherds of three vessels collected there (fig. 13).

FIG. 14.—Sherd of a vessel of the Western Iroquois type.

It was abundant on Manhattan Island, at certain sites of Staten Island, and at Van Cortlandt Park, and some pieces were obtained at Schley avenue, including part of a rim with a conventional human face (see p. 69). It is characterized especially by the heavy collar and deeply notched angle, and by line-decoration incised or impressed in chevron groups with a carved antler or a bone stamp. In this respect the example of this group shown in fig. 14 is unusual, resembling a more westerly Iroquois form, a heavy, round, squat pot with only a narrow, thick collar.

These Iroquois vessels are quite commonly found in the upper layers of deposits in rock-shelters in Westchester county, New York, and in northern New Jersey. They seem to mark the period of the actual contact of the Iroquois with our Algonkians, and the end of transmitted influence. Probably the form appeared at Snakapins during the very last part of its life as a Siwanoy settlement. Of many fragments found locally by the writer, all have come from sites which also yielded trade objects. No sherd of this ware was obtained among thousands from Bowmans Brook site, Mariner's Harbor, Staten Island, where sub-Iroquois pottery abounded, but where no trade articles were found. A few miles away, at Watchogue, typically Iroquois sherds were collected on a small camp-site, which yielded brass arrowpoints. At Van Cortlandt Park and upper Manhattan Island, similar vessels and trade objects were collected.

THE GRAVES

The burials found at Snakapins presented little that is new to students of local archeology. All were of the customary flexed type, and interred in very shallow excavations, from ten inches to three feet, generally not more than two feet, in depth. No care was taken as to orientation, the heads being pointed in varying

SKELETON IN PIT 44, CLASONS POINT, SHOWING BONE AWL AT FEET AND BONE BATTEN OR DAGGER AT KNEES

directions. In two of the seven cases examined, objects were found deliberately interred with the dead. In Pit 13, which contained two male skeletons, a stemmed arrowpoint of dark flint (pl. XI, f) was found close to the knees of the more southerly skeleton. In Pit 44, a bone awl and a bone batten (fig. 6) were found, the former near the feet, the latter adjacent to the knees. These are implements one would associate with women's work, yet the skeleton has been identified by Dr Hrdlička as that of a large adult Algonkian male. In fact all the dead at Snakapins were adult males.

Pit 25 held a burial peculiar in that it was flexed on its back, and covered with a pile of heavy bowlders. Although badly crushed and in poor condition, the fact that the teeth were almost worn away, as is usual in all local Indian remains, would indicate that the skeleton was that of a native.

Pit 26 contained a skeleton buried at a time slightly following European contact, as in the grave fill, not deposited by design with the dead, were a beef-rib, cut off with a metallic saw, and a piece of the stem of a Dutch white-clay trade pipe. This circumstance shows only a slight knowledge of the Dutch, for burials about twenty years later would have had brass kettles, beads, bottles, and iron articles in association.

In the case of the burials in Pit 13, an adjoining pit (No. 12) held a large number of huge oyster-shells, apparently the remains of a feast. The aged male found in Pit 23 seemed to have been buried in a mere refuse pit. In Pit 25, the case of the skeleton buried under the stone-pile, little pockets of oyster-shells were found among the stones. Southwest of Pit 26, which contained a skeleton, was a small, bowl-shaped bed of oyster-shells which touched the remains. In Pit 44 (pl. XIV), shells, ashes, bones, and feast debris were found beneath the skeleton, and this was true of the burial in Pit 53. In other words, a feast seems to have been a usual part of the mortuary ceremonies.

At Schley avenue, greater variation in the treatment of the dead was observed. In Pit 1, under a 14-inch layer of shells was a jumbled mass of human bones, representing two skeletons, one minus the skull; lower still was the flexed skeleton of a young

woman, and nearby another flexed body, that of a male. In one case a stone of about a hundred pounds' weight lay on a skull. In Pit 7, under feast débris, was a stone-pile covering the upper portion of the skeleton of a young person with one of the stones, weighing thirty or forty pounds, on the head, while scattered over the stones were fragments of the skull of an aged person.

In the shellheap two burials of children of an older period were found. In Pit 17 were the flexed remains of a child, with feast débris, and, as in Pit 13 at Snakapins, with a stemmed point of white quartz at the knees. In Pit 40 were traces of a child's remains, with feast débris. In all there were seven or eight burials.

It may be fairly said, then, that flexing the body, sometimes covering it with large stones, and holding a wake feast, were established funeral customs of the Siwanoy. The placing of articles in the grave was unusual, unless such objects as baskets, wooden utensils, and skins and fabrics, which of course would long since have decayed, accompanied the dead at the time of burial.

If, as seems probable, the later pit group at Schley avenue was synchronous with the Indian war which commenced in 1643 by Kieft's massacre of the natives near Manhattan, that fact would account for the relatively large number of dead, slain perhaps during the succeeding years of fighting. On the other hand, what were apparently empty graves were found there and at Snakapins, and we know that the Indians hereabouts sometimes took their dead with them when they changed their abode, hence after the sale to Cornell the Siwanoy might well have taken their beloved or recent dead to new graves at Schley avenue. Two bone burials, that is, masses of human bones interred after the decay of the flesh, were found at the Schley Avenue site, and two empty graves at Clasons point. This evidence, however, is purely circumstantial.

Two comparatively little known accounts of native mortuary customs will bear quotation at this juncture.

Wassenaer¹ tells how the flexing of the dead was accomplished:

"When they have a corpse, they place it, in the act of dying, squat on the

¹ *Historie van Europa*, Amsterdam, 1621-1632, *Documentary History of New York*, vol. III, p. 29.

heels, like children sitting in this country before the fire; and so lay it in the grave, all sitting: its face to the east."

Next we have a detailed account by Van der Donck, written in 1656.¹ It may be noted that Wassenaer is correct in his description of the sitting posture of the dead, but laid on one side, and that Van der Donck is in error in stating that the attitude is one of sitting upright. Curiously, all writers mention the placing of utensils, some, like kettles, certainly imperishable, with the dead. This may have been true of the vicinity in late Colonial times, but the custom was not in vogue, except in rare instances, at an earlier date. It was not common even among the Iroquois until the dawn of contact with white people.

"Whenever an Indian departs this life, all the residents of the place assemble at the funeral. To a distant stranger, who has not a friend or relative in the place, they pay the like respect. They are equally careful to commit the body to the earth, without neglecting any of the usual ceremonies, according to the standing of the deceased. In deadly diseases they are faithful to sustain and take care of each other. Whenever a soul has departed, the nearest relatives extend the limbs and close the eyes of the dead; and after the body has been watched and wept over several days and nights, they bring it to the grave, wherein they do not lay it down, but place it in a sitting posture upon a stone or a block of wood, as if the body were sitting upon a stool; then they place a pot, kettle, platter, spoon, with some provision and money, near the body in the grave; this they say is necessary for the journey to the other world. Then they place as much wood around the body as will keep the earth from it. Above the grave they place a large pile of wood, stone or earth, and around and above the same, they place palisades resembling a small dwelling. All their burial places are secluded and preserved with a religious veneration and care, and they consider it wicked and infamous to disturb or injure their burial places. The nearest relatives of the deceased, particularly the women, (the men seldom exhibit much excitement) have their periods of lamentations, when they make dreadful and wonderful wailing, naming the dead, sometimes upon their breasts, scratching and disfiguring their faces, and showing all possible signs of grief. But where a mother has lost a child, her expressions of grief exceed all bounds, for she calls and wails whole nights over her infant, as if she really were in a state of madness. If the deceased are young persons, or persons slain in war, then their lamentations are of a particular kind, and the women shave off their hair, which they keep the customary time, and then they burn the hair upon the graves of the deceased or slain, in the presence of the relations. In short, they possess strong passions, and exhibit the same with much feeling when mourning over their dead relatives

¹ *New York Historical Collections*, n.s., vol. 1, p. 201.

and friends. For the purpose of removing the existing causes of grief, and not excite sorrow in the mind of the bereaved, and as far as possible to promote forgetfulness of the friends lost, the name of the deceased is never mentioned in the presence of the relations; or when the name is mentioned, it is received as if designed to produce mortification, and as an act of unkindness. The use of tokens of mourning is common, which usually are black signs upon their bodies. When a woman loses her husband, she shaves off her hair, and paints her whole countenance black as pitch; and men do the same when their wives die, and they also wear a buck-skin vest next to their skin, and mourn a whole year, even if they have not been long married, or if the connection had not been happy—still they observe the ceremonies religiously without marrying again until the season of mourning is over.”

We have some information on the post-European burial customs of the Siwanoy themselves, showing that they too adopted the custom of placing objects with the dead.¹

“Near the entrance of Pelham Neck, is situated the favorite burying ground of the river tribes, to which the Indians brought their dead even from Horseneck, Connecticut, for interment. Numerous mounds are still visible near the water’s edge, on the property of the late Mr. George Rapelje. Two of the largest mounds are pointed out as the sepulchres of the Siwanoy sachems, Ann-hoock and Nimham. The former was opened some years since, and found to contain a large sized skeleton, by the side of which lay the stone axe and flint spear of the tenant of the grave. We have examined several mounds near the water’s edge; one of these held the remains of an Indian boy about 12 years old, in a sitting position, together with a beautiful specimen of native pottery formed by the hand alone, rudely ornamented with zigzag lines. In this we discovered an arrowhead and the bones of a small animal. Near the residence of Mrs. King, the remains of an Indian were found in a perfect state of preservation with a gun by his side.”

Mr M. R. Harrington completely excavated the remains of the knoll on which these burials were said to have been found in 1899. He found three skeletons without accompaniments, but obtained the usual relics in some nearby pits. Others are said to have been more fortunate. At that time a portion of the burial knoll had been worn away by tides, and some sand had been carted off. Now it has been obliterated and no further data are available.

¹ Bolton, Robert, *History of Westchester County*, vol. 1, p. 517.

FOOD RESOURCES

ANIMAL FOODS

The inhabitants of Snakapins lived largely on marine mollusca, fish, and crustaceans, but were good hunters. Unlike their Throgs Neck relatives, they seem not to have taken the bear or the elk. Inasmuch as no bones, teeth, or antlers of the elk were found in the surface layers of the newer pits at Weir Creek point, it may be that that animal had already become scarce east of the Hudson. However, elk-bones occur in the shellheap at Inwood, so that the Manhattan, whose relations lay west of that river, may have had access to elk long after they had passed beyond reach of the Siwanoy.

Bears' teeth and bones were absent, yet these were found at a depth at Schley avenue and also at Inwood. So far the writer has met with none on any site under Iroquois or modified Iroquois influence in tidewater New York. This does not mean that the later Algonkians ceased to kill bears, but it may indicate a change in custom concerning hunting. All the northern and central Algonkians with whom the writer has come in contact, including the eastern and plains Cree, the northern, central, and plains Ojibwa, and the Bungi, Menomini, and Potawatomi, have special observances connected with bear hunting. These invariably include the preservation of the skull, generally by placing it in a tree or on a pole, and usually the protection of the bones of the bear from falling the prey of village dogs. The introduction of this custom at the Clasons Point site about the period under consideration would account for the sudden vanishing of teeth and bones of the bear at this time. That it was not an Iroquois introduction is well known, as it was never an observance by these people. The rest of the food articles needs no comment.

A list of the food animals identified by Mr Herbert Lang and Mr John T. Nichols of the American Museum of Natural History, and by Mr William T. Davis of New Brighton, Staten Island, is as follows:

Virginia deer, *Odocoileus americanus*. The most abundant animal at both the Schley and Leland Avenue sites.

Elk, *Cervus americanus*. Found at Schley avenue only.

Black deer, *Ursus americanus*. From Schley avenue only.

Domestic dog, *Canis familiaris*. A large native species, probably like the modern Eskimo dog. Found at both sites, both buried separately, and bone fragments in the refuse.

Raccoon, *Procyon lotor*. Abundant at both places.

Skunk, *Mephitis mephetica*. Identified only from Leland avenue.

Otter, *Lutra canadensis*. Common at both sites.

Domestic pig, *Sus scrofa domestica*. Found only in later pits and near the surface of the shellheaps at Schley avenue.

Hogs are mentioned early in Dutch Colonial history, and probably soon came into possession of the Indians. In 1640 the Raritan Indians of Staten Island were wrongly accused of stealing some pigs, and Kieft accordingly sent a punitive expedition among them, which was conducted so barbarously that an Indian war ensued.¹

At the Bowmans Brook site at Mariner's Harbor, Staten Island, although no trade articles occurred, teeth and bones of the domestic hog were found in a shell-pit. Of course this pit may have been more recent than its neighbors.

According to a document called "Breedon Raedt,"² a detailed account is given of the butchery of seven Long Island Indians from Hempstead, accused, also falsely, of stealing hogs, in April, 1644. These are the earliest references the writer has been able to find concerning hogs in possession of our local Indians, although no doubt swine were early brought from Holland by the colonists. The dates are interesting, since they coincide quite independently with the time set by the writer as being about the probable date of the settlement at Schley avenue by the later Siwanoy.

Beaver, *Castor canadensis*. Identified only from Schley avenue.

Woodchuck, *Arctomys monax*. Identified only from Leland avenue.

Wild turkey, *Meleagris gallipavo silvestris*. Both sites.

Many small mammals and birds, such as squirrels, muskrats, ducks, partridges, and others, no doubt were eaten by the Indians, but their delicate bones would soon have fallen prey to the dogs.

¹ Holland Documents, *Documents Relating to the Colonial History of the State of New York*, vol. I, p. 50.

² O'Callaghan, *Documentary History of New York*, vol. IV, p. 67.

It is curious that, of the many thousands of bones found, so few species should be identifiable. Judging by the quantity of their bones, some animals were far more favored as food, or more easy to obtain, than others.

Many fish-bones were found at both sites, and of marine species exclusively. These proved difficult to identify. Mr Nichols identified among the bones those of the Sting-ray (*Dasyatis*); a bit of the head-armature of a Sturgeon (*Acipenser*); a vertebra of a Smooth Dogfish (*Mustelus*); a piece of the lower jaw of a Bluefish (*Pomatomus*), and a vertebra of a Drumfish (*Pogonias*), probably. Three other bones are not readily determinable.

Tortoises were commonly eaten, but a greater variety of species was found at Clasons point than at the Schley Avenue site. Among these are the following:

Box-tortoise, <i>Terrapene carolina</i>	Snapping Turtle, <i>Chelydra serpentina</i>
Painted Tortoise, <i>Chrysemys picta</i>	
Spotted Tortoise, <i>Chelopus guttatus</i>	Diamond-back Turtle, <i>Malaclemys centrata</i> .
Musk Tortoise, <i>Aromochelys odoratus</i>	

No true marine species was represented.

Of crustaceans the Blue Crab (*Callinectes sapidus*) and the Lobster (*Homarus americanus*) have been identified. These were found only at Leland avenue, though doubtless also eaten by the Indians at the Schley Avenue site.

Common at both sites were the following shell-fish:

Oyster, <i>Ostrea virginica</i>	Land Snail, <i>Helix alternata</i>
Hard-clam, <i>Venus mercenaria</i>	Black Mussel, <i>Mytilus edulis</i>
Scallop, <i>Pecten irradians</i>	Gray Mussel, <i>Modiola plicatula</i>
Two species of Conch, <i>Fulgur carica</i> and <i>F. caniculata</i> .	

VEGETAL FOODS

Of vegetal foods we find: Corn (*Zea mays*), Hickory nuts (*Hicoria* sp. ?), Walnuts, and Sweet-flag roots.

Judging by the presence of the pipes described, the natives used a species of *Nicotiana* for smoking.

CONCLUSIONS

Snakapins was evidently a considerable settlement of the Siwanoy Indians, which was in full life from late prehistoric times, say about 1575, until the early Dutch Colonial period, say 1625-43. As Mr Bolton has shown, the name of the locality, and probably of the village itself, was Snakapins.

The accompanying map by Mr Bolton indicates a certain regularity in the placement of the pits and graves at Snakapins. Just what this signifies we are not prepared to say. If each pit marks the position of a wigwam in the village, it may indicate that the dwellings were erected in groups approximating streets or rows, a feature not heretofore recorded.

It will be observed that, while the graves are somewhat grouped toward the southeastern end of the site, there was no special cemetery, some bodies having been interred among the lodges. It has long been known that our Indians buried in pits or fireplaces, often inside the lodge, in winter, when frozen ground made grave-digging impossible; but it seems to the writer that this may have been the usual custom, regardless of season. Cemeteries, as such, are exceptional in coastal New York, although by no means unknown, as witness the great burial ground at Tottenville, Staten Island; but elsewhere on that island, and in Brooklyn, Manhattan, and Bronx boroughs, at numerous known sites, burials commonly occur among or in the lodges, as for example at Port Washington, Long Island, Van Cortlandt Park, Mariner's Harbor on Staten Island, Throgs neck, and in and near Isham Park, Manhattan borough.

The pits discovered and opened at the Clasons Point site were of several kinds. The most common variety was of bowl-shape, averaging three feet in diameter by about the same depth. A variation of this form was similar, but much shallower—from six to eighteen inches only. These we have called "dish-shaped" pits. Still another type was circular in surface outline, like the preceding, and of the same general width, but much deeper, with vertical sides giving a barrel-shaped cross-section. A common form was a long oval, about four by two feet, and three or four feet deep. This we have designated the "oval" form. No pits of conical or

of truncated cone shape in cross-section, like some found at Schley avenue, were uncovered, nor were there any of triangular or semi-lunar shape.

A number of the bowl and oval types were of unusually large size and depth. Not all of the pits were filled with shells, some containing principally discolored earth, wood-ashes, and charcoal, their outlines being sharply defined by the bright yellow or reddish undisturbed sand, which, as a rule, was generally much harder than the earth in the pits. Many of the pits were completely crammed with shells of the common local edible bivalves, especially the oyster, hard-clam, and scallop. In some cases these shells were so closely packed that no sand could filter between the interstices; in such instances they appeared to be unusually well preserved. In other cases the shells were sparse, and often they were partially or wholly calcined. Some contained shells of only one or two species, as in the case of the scallops, which were probably obtainable in numbers only in certain years. Some of the pits were unquestionably earlier than others, although, by their appearance and contents, all must have been nearly contemporary. At least the site seems to have been occupied for a period covering only the span of a few decades. In the instance of the later pits, these were cut into older excavations previously covered and their existence evidently forgotten. Some pits touched, or were double, by design or accident, and seem to have been in use at the same time.

The purpose of the pits was not in all cases the same. Some were employed as refuse dumps, which, when they became offensive, were cleansed by raking the offal to the sides and casting in clean sand. These probably stood close to the wigwams. Others may have been built as ovens, hot stones placed therein, filled with shellfish and covered over to steam, in a way like our modern clam-bakes. Still others may have been caches for corn or vegetables. A limited number either held fires or were burnt out to destroy the refuse. Few seem to have been real indoor hearths, but one or two contained circles of fire-stones and may have been outside kitchens. A number were secondary graves, probably being open and convenient when a death occurred in winter. Some were made for

no other purpose than the reception of the dead, and the shells which invariably accompanied the skeleton are but the remains of the mortuary feast. Deposits of charcoal beneath the dead were perhaps from fires built to warm the earthy bed of the deceased.

In a description of the first settlement of New Netherland by the Dutch, taken from Wassenaer's *Historie van Europa*, published in Amsterdam in 1621,¹ we read:

"It appears that the *Sickanamers*, before mentioned, make a sort of sacrifice. They have a hole in a hill in which they place a kettle full of all sorts of articles that they have, either by them, or procured. When there is a great quantity collected a snake comes in, then they all depart, and the *Manittou*, that is the Devil, comes in the night and takes the kettle away, according to the statement of the *Koutsinacka*, or Devil hunter, who presides over the ceremony."

This statement may account for the occurrence, often noted on other sites, of the dog-burial in Pit 14, since dogs were and are still commonly sacrificed to the gods by the forest Indians, most of whom still recognize a monster snake manitu. Pit 55 held the entire skeleton of a small sturgeon, about four feet long, neatly curled around its inner edge. This fish may also have been an offering.

It was noted, in cleaning the specimens, that the number of vessels represented by the sherds found in some of the pits was much underestimated in the field, fragments of the rims of as many as seven vessels sometimes occurring in one deposit. The fact that so many were represented, and that the sherds show little fitting, would indicate that the jars had been broken at a distance and the fragments carried to the pits for deposit. This, and the further point that in some pits only a single sherd occurred, may indicate that some of these pits may have held sacrificial deposits of food in which pottery vessels were thriftily represented by the deposit of a few fragments. Certainly, in grave finds in an Andaste cemetery situated near the junction of the Chemung and Susquehanna rivers, at Athens, Pennsylvania, the writer found single sherds or portions of pots doing duty as complete jars in some graves, while others contained entire receptacles.

Local tradition, as related by long-time residents of Clasons

¹ O'Callaghan, *Documentary History of New York*, vol. III, 1850, p. 29.

point, holds that this hill was formerly called "the old Indian burying ground," and that wandering Indians visited the spot yearly to perform some small ceremony for their dead, perhaps the burying of food, well into the historic period. The tradition may be valueless, but the suggestion that some of the Snakapins pits were sacrificial spots is still worthy of consideration, even though the greater number indicate lodge-sites, or storage or refuse holes.

Analysis of the contents of the pits at Snakapins indicates plainly that the inhabitants of the place were under Iroquois influence, as is shown in detail in the foregoing discussion of the specimens. To recapitulate, this is proved by the abundance and excellence of articles of bone and antler, and the decadence of the art in stone and especially in the pottery. By comparison with the earthenware from the deeper portions of the Schley Avenue shell-heap, it is evident that the Snakapins villagers were far more advanced as potters. None of the typical archaic Algonkian ware of Throgs neck was found; a few later Algonkian forms were recovered, but by far the greater number of sherds were of a kind which we have termed sub-Iroquois. Only a few fragments of the boldly imitated jars of true Mohawk type, common on sites of the later Dutch Colonial period, were found, whereas at Schley avenue, in the upper or surface layer of the great heaps, and in the later pits, this form was better represented.

At Snakapins the only evidence of European contact was a few fragments of Colonial trade-pipe stems, and a beef-bone that had been severed with a metal saw. The Indians, therefore, abandoned the settlement soon after the arrival of the whites, probably immediately following the sale of the point. At Schley avenue, in the same levels and pits where the true Iroquois potsherds were found, pig-bones, bullets, gun-flints, and trade-pipe stems were collected, enough to show considerably more contact with whites than at Leland avenue.

Glass bottles, Dutch glazed earthenware, iron tomahawks, wampum, and quantities of glass beads, such as mark Indian sites of the late Colonial period, were wanting, hence we know that at Schley avenue the Indians did not remain in a body many years

after contact with civilization, as history and archeology show them to have done at Pelham bay. Of course, everywhere straggling individuals, completely adopting the customs of the Dutch, remained about the settlement for years.

There is reason, therefore, to believe that at the close of the archaic Algonkian period in tidewater New York, when Iroquois influence commenced to make itself felt, tempered by passage through the lands of the tribes of the upper Hudson, the nations of the Schley Avenue site changed their abode for the adjacent Clasons and perhaps Castle Hill points, which they held for more than half a century, until the arrival and establishment of the colonists, possibly until 1643, when, as Bolton has recorded, Cornell bought Clasons point of their sachems, then resident at Castle hill. Since Cornell no doubt demanded their removal, as was customary when the whites bought land of the Indians, those who dwelt at Snakapins left, and alone, or with their Castle Hill companions, returned to Throgs neck, where they abided a short time, when they were ousted by the disastrous Indian war engendered by the Dutch.¹

At any rate, the character of the Snakapins remains shows them to have covered a period of local culture development that would exactly fit the gap in occupancy between ancient and modern times at Throgs neck.

¹ The Breeden Raedt, published in Amsterdam in 1649, reprinted in O'Callaghan's *Documentary History of New York*, vol. IV, p. 67, states that 1,600 Indians were massacred by Kieft's orders between 1643 and 1644, many of these having no knowledge of the Dutch and dwelling at out-of-the-way places, where they were searched out and slain.

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